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THIRD SERIES. JULY,

No. CCXCV. 1896.

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1. Official Year-book of the Scientific and Learned Societies of Great Britain and Ireland. Thirteenth Annual Issue. London: Charles Griffin & Co. 1896. 8vo. Pp. 262.

2. A System of Medicine by many Writers. Edited by Thomas Clifford Allbutt, M.A., M.D., LL.D., F.R.C.P., F.R.S., F.L.S., F.S.A., Regius Professor of Physic in the University of Cambridge. Volume I. London: Macmillan & Co. 1896. 8vo. Pp. xl + 977.

3. Die Pathologie der Schutzpocken-Impfung. Von S.-R. Dr. L. Fürst. Berlin: Oscar Coblentz. 1896. 8vo. Pp. 110.

4. Bulletin of the Johns Hopkins Hospital. Vol. VII., No. 61. Baltimore, April, 1896.

5. The Medical Pioneer. Vol. 4. Nos. 8 & 9. May and June, 1896.

6. The Philadelphia Polyclinic. Vol. V., Nos. 19, 20, 21, 22, 23, 24, 25. May 9, 16, 23, 30; June 6, 13, 20, 1896.

7. Pediatrics. Vol. I., Nos. 10, 11, 12. May 15th; June 1st, 15th, 1896. New York: Van Publishing Company. London: John Bale & Sons.

8. Formulaire Aide Mémoire de la Faculté de Médecine et des Medecins des Hôpitaux de Paris. Par le Dr. Fernand Roux. Quatrième Édition. Paris: G. Steinheil. 1896. 8vo. Pp. 423.

9. Manual of Practical Anatomy. By D. J. Cunningham, M.D. (Edin. et Dubl.), D.Sc., LL.D., D.C.L. (Oxon.), F.R.S. Volume Second. Second Edition. Edinburgh & London: Young J. Pentland. 1896. 8vo. Pp. 644.

10. El Eco del Consultorio. Año iii. Núm. 10. Madrid. 15 de Mayo de 1896.

11. The Printers' Engineer. May and June, 1896. Pp. 16.

12. The Farmer and Stock-breeder. London: Monday, May 25, 1896. [Duplicate copies].

13. Polymyositis Acuta, with report of a case presumably of Syphilitic Origin (Myositis Syphilitica). By James B. Herrick, M.D. Chicago. 1896. Reprint. Pp. 17.

14. La Revue Médicale. Cinquième Année. Nos. 99, 100, 101, 102, 103. Paris: Maloine.

15. Gaceta Médica de Costa Rica, América Central. Año I. Núm. 1. 1° de Mayo de 1896. San José de Costa Rica; Tipografía Nacional. 1896. Pp. 23.

16. The Great Famine in Ireland. By W. P. O'Brien, C.B. London: Downey & Co. 1896. 8vo. Pp. 340.

17. Annales de la Polyclinique de Bordeaux. Tome IV. Fascicule 9. No. 32. Mai, 1896. Bordeaux: Feret et Fils.

18. The Indian Medico-Chirurgical Review. Vol. IV. Nos. 3 & 4. March and April, 1896. Bombay: N. K. Rao & Co. Tardeo.

19. Modern Optical Instruments and their Construction. By Henry Orford. London: Whittaker & Co. 1896. Crown 8vo. Pp. 101.

20. International Medical Magazine. Vol. V., No. 4. May, 1896.

21. Clinical Diagnosis. By W. G. Aitchison Robertson, M.D., D.Sc., F.R.C.P.E., F.R.S.E. London: The Scientific Press. 1896. 8vo. Pp. 366.

22. Twentieth Century Practice. Edited by Thomas L. Stedman. Volume V. Diseases of the Skin. London: Sampson Low, Marston & Co. 1896. 8vo. Pp. 905.

23. The Pathology of the Contracted Granular Kidney. By Sir George Johnson, M.D. Lond., F.R.C.P., F.R.S. London: J. & A. Churchill. 1896. 8vo. Pp. 62.

24. Affections chirurgicales du Tronc (rachis, thorax, abdomen, bassin). Par le Dr. Polaillon. Paris: Octave Doin. 1896. 8vo. Pp. 550.

25. The Lancet and the Hyderabad Commissions on Chloroform. London: The Offices of the Lancet. 1896. Pp. 193.

26. Kastration ved Prostatahypertrofi. Af Fredrik Ramm. Kristiania. 1896. 8vo. Pp. 73.

27. What it Costs to be Vaccinated. By Joseph Collinson. London: William Reeves. 1896. Pp. 46.

28. Humanitarian League. Fifth Annual Report. 1895–1896. Pp. 7.

29. Neuritis Complicating Dislocation of the Shoulder and Elbow. By M. A. Veeder, M.D. Lyons, N. Y. Reprint. 1896. Pp. 6.

30. The Universal Medical Magazine. Vol. VIII., No. 6. March, 1896. Philadelphia, Pa.

31. The New Albany Medical Herald. March, 1896.

32. Blätter für klinische Hydrotherapie. Wien, Mai und Juni, 1896. VI. Jahrgang. Nr. 5, 6.

33. Gaillard's Medical Journal. June, 1896. New York.

34. The Canadian Practitioner. May, 1896. Vol. 21. No. 5. Toronto: The Bryant Press.

35. The Hydro-Electric Methods in Medicine. By W. S. Hedley, M.D. Second Edition. London: H. K. Lewis. 1896. 8vo. Pp. 115.

36. Lewis's Diet Charts. London: H. K. Lewis. 1886.

37. Burdett's Hospitals and Charities. 1896. By Henry C. Burdett. London: The Scientific Press. 1896. 8vo. Pp. 955.

38. The Etiology, Symptoms, and Treatment of Gall-stones. By Dr. J. Kraus, Sen., of Carlstad. London: Kegan Paul, Trench, Trübner & Co. 1896. 8vo. Pp. 173.

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40. A Text-book of Histology, descriptive and practical. By Arthur Clarkson, M.B., C.M. Edin. Bristol: John Wright & Co. 1896. 8vo. Pp. 554.

41. Strathpeffer Spa: its waters and climate. By R. Fortescue Fox, M.D. Lond. Third Edition. London: Adam & Charles Black. 1896. 8vo. Pp. 194.

42. The Spas and Mineral Waters of Europe. By Hermann Weber, M.D., F.R.C.P., and F. Parkes Weber, M.D., M.R.C.P. London: Smith, Elder & Co. 1896. 8vo. Pp. 380.

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44. De la Prothèse appliquée au traitement des Empyèmes de l'Antre d'Highmore. Par le Dr. Simon Dunogier. Bordeaux: G. Gounouilhou. 1896. Pp. 14.

45. Aids to Medicine. Parts I.–II. Pp. 128. Parts III.–IV. Pp. 122. By Norman Dalton, M.D. Lond., F.R.C.P. London: Baillière, Tindall & Cox. 1896.

46. Chemical Notes and Equations: inorganic and organic. By G. H. Gemmell, F.I.C., F.C.S. London: Baillière, Tindall & Cox. 1896. Pp. 244.

47. Thirty-fifth Annual Report of the Cincinnati Hospital. By Frank W. Hendley, M.D., Superintendent. Cincinnati: The Commercial Gazette Job Print. 1896. 8vo. Pp. 235.

48. The Modern Treatment of Stone in the Bladder by Litholapaxy. By P. J. Freyer, M.A., M.D., M.Ch. London: Baillière, Tindall & Cox. 1896. Second Edition. 8vo. Pp. 120.

49. Chancre de la Sous-cloison du Nez. Par le Dr. G. Richard d'Aulnay. Extract. Pp. 3. Paris: G. Masson. 1896.

50. De la Syphilis conceptionnelle ou Conceptuo-syphilis. Par le Dr. G. Richard d'Aulnay. Paris: Noizette et Cie. 1895. Pp. 31.

51. Di una nuova particolarità nella tecnica dell' Anestesia locale cocainica. Per il Dott. Tito Costa. Genova: Pio Gaggero. 1896. Pp. 7.

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54. The Murphy Button; with a Report of an Unsuccessful Cholecystduodenostomy. By Aug. Schachner, M.D., Ph.G. Reprint. 1895. Pp. 11. Louisville, Ky.

55. Modern Methods of Intestinal Anastomosis. By August Schachner, M.D., Ph.G. Louisville, Ky. Reprint. 1895. Pp. 21.

56. Ueber den Einfluss der Somatose auf die Sekretion der Brustdrüsen bei stillenden Frauen. Von Dr. Richard Drews. Leipzig: Breitkopf und Härtel. 1896. Reprint. Pp. 8.

57. Catalogue of Books and Papers on Medicine, &c., offered for sale by Dulan & Co. V. 1896. London.

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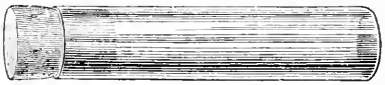

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THE DUBLIN JOURNAL

OF

MEDICAL SCIENCE.

JULY 1, 1896.

PART I.

ORIGINAL COMMUNICATIONS.

ART. I.—*Notes on Ovariotomy.*[a] By SIR WILLIAM STOKES, Surgeon-in-Ordinary to Her Majesty the Queen in Ireland; Examiner in Surgery, University of Oxford, &c.

IN the evolution of Abdominal Surgery which has occurred since I commenced surgical practice, no measure stands out in better relief than the operative treatment of ovarian disease. I can well remember, when a student in Vienna, a gentleman attending the surgical clinique there, and who was a Professor of Surgery in Stockholm, being pointed out to me by one of the students, who whispered with bated breath, "He has performed ovariotomy twice!" I did not learn the results obtained in these cases, but let us hope they were successful

The excitement that the early cases of Mr. Clay, Sir Spencer Wells, and Mr. Baker Brown caused, I have still a clear recollection of, as well as the keen interest that was taken in their work by the *Dii majores* of the surgical profession both here, in London, and on the Continent.

It was chiefly owing, I think, to the way the results obtained by some subsequent ovariotomists were too often put forward, or published, that the opinion or belief was

[a] Read before the Surgical Section of the Royal Academy of Medicine in Ireland, Friday, May 1, 1896.

formed in the public as well as the professional mind, that the operation should be strictly confined within the narrow limits of an exclusive specialism; and some even went so far as to hint, in no uncertain manner, that the operating surgeon of a general hospital, who had the hardihood to cross the sacred threshold of gynæcological specialism, was indifferent both to his own reputation and to the welfare of his patient.

It is hardly necessary for me to dwell on the complete change that has, of late years, come over the scene, and how, owing to improvements in various points in the *technique* of the operation, but especially to our greater familiarity with the principles and practice of aseptic and antiseptic surgery, as elaborated by Lister, the difficulties and obstacles which formerly surrounded the operation have, one by one, been swept away, rendering the pathway to success, in the great majority of cases, clear and reliable, and the operation one now frequently performed with signal success in most of our general hospitals.

The following notes are based on the results I have obtained in the last twelve cases on which I have performed ovariotomy. The operations date from June, 1877. Of these twelve cases, ten were brought to a successful issue, giving a percentage of recovery of over 83. It must, I think, be admitted that this result is, on the whole, encouraging, particularly having regard to the fact that the majority of the operations were performed in hospital structures of considerable antiquity, and some of them before many of the modern appliances and devices for promoting surgical cleanliness now constantly in use by every conscientious surgeon were introduced, and when the methods of maintaining wound asepticism during and subsequent to the operation were not as well understood as they are at present—methods which we know now are so essential, and without which the surgeon is seriously handicapped in his efforts to bring his operation cases to a satisfactory termination. The notes of some of these ovariotomies have already appeared in the *Dublin Medical Journal* and other periodicals, and the tumours removed in all the cases have been exhibited in the Surgical Section of the Academy. The last four cases,

however, that I have operated on have not been published, and, avoiding all minute details, I will briefly mention the more important particulars about them.

For the following notes I am mainly indebted to Mr. William Taylor, late House Surgeon to the Meath Hospital:—

Case I.—The first case was that of a patient, aged fifty-two, married, and the mother of three children, who was admitted into hospital on June 19th, 1892, on the recommendation of my friend, Dr. Fraser, of Drumkeeran, Co. Leitrim. She stated that she first noticed the tumour fourteen months previously to her admission. It was globular, fluctuating and movable; resonance was noted in both flanks, but the dulness observable all over the anterior portion of the growth, extending further on the left than on the right side. The circumferential measurements were, at the base of the chest, $31\frac{5}{8}$ in., and at umbilicus $38\frac{3}{8}$ in. The distance from the xiphoid cartilage to umbilicus $9\frac{1}{2}$ in., and from umbilicus to pubes 10 in. From umbilicus to anterior superior spine on right side $10\frac{3}{8}$ in., and on left side $10\frac{1}{2}$in. About six weeks previously to her admission into hospital the tumour was tapped, and a quantity of very thick fluid, like boiled starch, was drawn off. There was absence of pain up to the time the tumour attained its greatest size, when the patient experienced some "soreness" at its upper margin, three months previously to her admission into hospital. This continued increasing in severity. She suffered occasionally from nausea and vomiting in the morning. Menstruation ceased for about two years, but latterly there had been a slight return of it. For about eighteen months she had suffered from "dull aching pains in the loins," which were intensified when she was in the recumbent position. The patient had been married nineteen years, and had her last confinement twelve years ago. She had a miscarriage eight years ago. A second series of measurements were taken on February 2nd, and even in the short interval of time between the first and second measurements a distinct increase was observed. On this date I operated. There were extensive adhesions on the anterior and upper portions of the tumour, which, however, were easily broken down. I then removed 332 oz. of fluid, which was porter-coloured, viscid, and albuminous. The tumour, which consisted of two large and many small cysts, and weighed 8 lbs., was then removed, and the pedicle was found to be a long one. This was transfixed and ligatured, and after a careful toilet of the

peritoneum the wound was sutured and treated with dry boric dressings. The progress to recovery of this patient was uninterrupted.

Case II.—The next case was that of a young woman, aged twenty-two, who was admitted into hospital under my care on November 15th, 1894. The abdominal enlargement from which she suffered, she noticed first about twelve months previously. At that time it was more marked on the right side, and she suffered from much pain occasionally in the right iliac fossa. The swelling then increased slowly but steadily. Six months after the tumour first appeared she was advised by Dr. Fraser, of Drumkeeran, to place herself under my care, but she postponed doing so for another six months, at which time the enlargement had greatly increased and was as well marked on one side as the other. Menstruation was quite regular all this time. On admission into hospital the abdomen was found to be swollen up to the ensiform cartilage, and the enlargement uniform. In this case, as well as in most of my other ones, I had the advantage of Dr. Atthill's opinion as to the advisableness of operative interference, and at the operations the assistance of my colleagues, Sir P. C. Smyly and Mr. Hepburn. On Nov. 22nd I operated, making the usual median incision about 4 inches in length. On exposing the cyst I found that there were no anterior adhesions, either recent or old. I then tapped the cyst with a Wells' trochar and evacuated 130 ounces of chocolate-coloured fluid. Owing, however, to the existence of many smaller cysts, I found I could not remove the tumour without materially enlarging the wound. The pedicle was found to be a fairly long one, which I then transfixed and ligatured in the same manner as in the first case. As there was practically no hæmorrhage or escape of any of the fluid of the tumour, I did not deem it necessary to make any diligent "toilet" of the peritoneum, but closed the wound at once and applied dry boric dressings. The subsequent progress of this case was quite uneventful. The wound healed by first intention. One dressing only was applied, and the patient was up on the 15th day after the operation.

Case III.—The next case was that of a married woman, aged forty-five, from Killicannon, Co. Cavan, who was admitted into hospital on August 7th, 1894, having been recommended to me by the late Dr. Mathews. Twelve months previously to her admission she first noticed her menstruation becoming scanty and occurring at longer intervals. Three months after this she observed her

abdomen becoming enlarged. After some months this enlargement was accompanied by severe shooting pains. These were relieved by tapping the tumour, which was done on May 15th, when 14½ pints of a dark-coloured fluid were drawn off. After a month the tumour was found to be as large as before. Since the tapping the monthly discharge has been entirely absent, but the pain has not been so marked as previously. The abdominal walls were tense, shining, and over each lateral aspect of the tumour veins largely distended were seen. The tumour was spherical in form, but bulging slightly on the right side, measuring from spina to umbilicus 21½ in. on the right side, and on the left 19 in. On a deep inspiration the tumour moved downwards ½ to ¾ of an inch. From ensiform cartilage to symphysis pubis measured 18 in. There was uniform dulness over the tumour, and some nodules could be felt in the umbilical region, and others extending downwards towards the left flank. The great bulk of the fluid contents appeared to be on the right side.

The examination of the uterus confirmed me in the opinion I formed that the tumour was distinctly ovarian. On August 15th I operated. The abdominal walls were very thin, and on exposing the cyst numerous adhesions were found. These, however, were easily broken down, and the cyst being punctured, 342 ounces of fluid were removed. The pedicle, happily a long one, was transfixed, ligatured, and divided, and there being no hæmorrhage or escape of fluid into the peritoneum, no "toilet" of that structure was resorted to. Deep and superficial sutures were then inserted without any drainage tube, and dry boric dressings applied. Like the last case, the progress to recovery was uninterrupted. The dressings were only changed once on the fifth day after the operation, when the wound being quite healed, the sutures were removed. On the twelfth day the patient sat up for two hours, and on the twenty-first day the patient returned home, since which she has remained in perfect health.

Case IV.—The next and last case I shall at present draw attention to is that of a patient, aged forty, unmarried, who came under my care on September 15th, 1895. She was a pale, sallow-coloured woman, with a somewhat idiotic expression of face, and a very peevish, unhappy, discontented temperament. She stated that the Christmas previous to her admission she first observed the abdominal enlargement. It appeared first on the left side, at the lower part corresponding to the left iliac fossa, and was accompanied with a good deal of pain. As time passed on, the swelling increased

until, on admission into hospital, the abdomen was greatly distended with a fluctuating tumour. Dulness was noticed on the front of the tumour and resonance over the right lumbar, but dulness over the left lumbar region. On the morning of the operation the following measurements were taken:—

From umbilicus to symphysis pubis,		$7\frac{1}{2}$ inches.
,, ,,	xiphoid cartilage	9 inches.
,, ,,	left anterior superior spine	$8\frac{3}{4}$ inches.
,, ,,	right ,, ,, ,,	8 inches.
Circumference of abdomen above umbilicus		$34\frac{1}{4}$ inches.
,, ,,	below ,,	$36\frac{1}{4}$ inches.

The existence of ascites was recognised, but from the history and physical character of the enlargement, I held the view which subsequently proved to be erroneous, that it consisted mainly of an ovarian cyst. I do not think any blame should be attached to me or anyone else who examined the tumour for coming to this conclusion, for I do not see how, in the present state of our knowledge, it would be possible to recognise the condition of things that I found at the time of the operation existed.

On September 27th I operated, assisted by Sir P. C. Smyly, Mr. Hepburn, and Dr. Atthill. Mr. Croly and Mr. Ballance, of St. Thomas' Hospital, were also present. On reaching the peritoneum, which apparently was much thickened, and opening it, a copious gush of clear serous fluid took place, and this continued until such a complete collapse of the abdominal enlargement occurred that for a moment I began to apprehend that I had made an error in diagnosis, and that the case was not an ovarian one. However, on the cessation of the flow of serous fluid I enlarged the opening, and passing my hand into the abdomen I grasped the tumour, about the size of a large cocoa nut, and which was in the left iliac fossa, and with difficulty drew it forwards towards the opening in the abdominal wall. This difficulty was caused by the existence of numerous firm adhesions, which existed chiefly on the posterior aspect of the tumour, and also from the fact that there was practically no pedicle. A considerable time was spent in detaching these adhesions, effected chiefly by ligature and division. The cyst, which was very friable and contained only a small quantity of fluid, was opened to ascertain more exactly its nature, and, if possible, from whence it sprang. The base of the tumour was then ligatured in several sections by a blunt needle, made much on the principle of the one known as Reverdin's. The cyst was then removed, and the cut end of the stump lightly touched with the thermo-cautery before being dropped back into the abdomen. The

"toilet" of the peritoneum being carried out in the usual way, its divided edges were brought together by a continuous suture of carbolised catgut, after which the edges of the wound were united by means of five interrupted sutures passed deeply through the tissues. Boric dressings were then applied and the patient replaced in bed.

On the 9th day, at the first dressing, the sutures were removed, the wound having completely healed. On the 13th day the patient was allowed to sit up for a short time, and soon after this she returned home.

I feel confident that one of the main causes of the success that, as a rule, now happily attends the operation of ovariotomy is the attention that careful surgeons pay to the preparatory treatment of the patient. This, according to Professor Ashton, of Philadelphia, should be carried out systematically for at least seven days previously to the operation, and consists of "rest, bathing, care of the bowels, regulation of the diet, special antiseptic preparations immediately before operation, and precautions against shock and vomiting." During this time the patient should be kept in bed, excepting, of course, when taking a daily bath, the water of which should be impregnated with an antiseptic such as eucalyptus. The frequent irrigation of the vagina with corrosive sublimate solution (1 to 4,000) is advocated by some surgeons, but is a practice that up to this I have not had recourse to. In the morning of the operation a thorough surgical cleansing of the abdomen is carefully carried out with soap, creolin, and ether, and a piece of lint, folded twice and soaked in a solution of carbolic acid (1 in 40), is laid over the field of operation.

Another element in the preparatory treatment that is strongly advocated by Ashton is the hypodermic injection of sulph. of strychnin ($\frac{1}{15}$ gr.) three times daily. According to him this drug has a signal effect in preventing the occurrence of, or at all events diminishing, post-operative shock. The hypodermic administration, immediately preceding the operation, of morphin ($\frac{1}{6}$ gr.) is, I think, to be commended, and, unless some very decided contra-indication exists, chloroform is the best and safest anæsthetic, being the one least likely to be attended with post-operation nausea and vomiting, the

disturbance caused by which militates so strongly against the satisfactory progress of the case. The diet for some days previous to the operation should be of such a character as to leave the bowels as empty as possible at the time of operation. This should be essentially of a sloppy character, and be coupled with a complete abstention from alcohol in any form.

As regards the *technique* of the operation I have little to say that is not to be found in the writings of Sir Spencer Wells, Prof. Ashton, Greig Smith, Mr. Lawson Tait, and other recognised authorities in connection with this operation. From my experience of it I would be disposed to advocate a tolerably free rather than a very limited abdominal incision. This is not in accordance with the views of Mr. Lawson Tait, who, I believe, is in favour of a very limited one. In Germany the pendulum swings in the opposite direction, a common practice being to remove ovarian cysts of considerable size without opening them, and through necessarily large abdominal openings. I would be slow to adopt this method, as I feel sure it must necessarily tend to augment the shock of the operation, and allude to it only from its having reliable credentials, and to point out that the length of the abdominal incision does not apparently injuriously influence the results, which, as a rule, are satisfactory.

But I would say that damage to the edges of the wound would probably result from dragging large tumours, sometimes with solid contents, through them. This has been noted (W. T. Stewart M'Kay), and from *à priori* considerations one would say is likely to occur and slowness in healing follow—results usually observed after any bruising or contusion of a wound.

In reference to adhesions I would say that the number and firmness of them do not appear to me to militate against the ultimate success of the operation, always provided they be properly dealt with; the operator should carefully abstain from forcibly breaking down any ones that do not readily yield to a gentle pressure of the finger or gauze sponge. All the firmer and older adhesions should be carefully ligatured by chromicised or carbolised catgut previously rendered, beyond all suspicion, aseptic, and then divided with scissors. This is particularly necessary when the omentum has become

attached to the tumour, that structure being exceedingly vascular. Prof. Ashton suggests a practical point in such cases—viz., in breaking up or dividing firm adhesions, to keep as close as possible to the tumour, there being then much less danger of wounding the hollow viscera. When the adhesions are firm and deep-seated in the pelvis, particular caution is required, as hæmorrhage from the anastomatic vessels between the uterine and ovarian arteries is not unfrequently a source of serious trouble to the operator and danger to the patient. The breaking down or tearing of such adhesions should be avoided. In some cases of this sort Ashton has recommended putting the patient in the Trendelenburg position, but of the value of this plan I cannot speak from personal experience.

In dealing with the pedicle we may now, I presume, regard the extra-peritoneal method as of interest only in a historical point of view to the surgical antiquary, and the division of the pedicle by the cautery, as was formerly practised by Baker Brown, Keith, and others, may be relegated to a similarly deserved limbo. The ligature, which may be employed in a great variety of ways, is now universally adopted, and the material—strong silk—asepticised above suspicion. Gusserow, Martin, and other eminent ovariotomists employ multiple ligatures, but here and in England a single one is usually adopted. Cases, of course, will arise where the pedicle is very short and broad, or—as in the fourth case I have noted in this paper, where there was practically none—where multiple ligatures may be required, but in the great majority of cases a single one is sufficient, and for many reasons is to be preferred. Among these may be mentioned the undesirability of making several punctures in the pedicle, thereby incurring the danger of the formation of hæmatomata, and also that where there are many ligatures there is the danger of some of them not becoming either absorbed or encysted, and acting, in consequence, as sources of irritation and disturbance. To diminish the chances of the formation of hæmatomata, it is desirable to employ a blunt needle. The instrument I have for some time employed is one given to me by my friend and former pupil, Dr. J. Murphy, of Sunderland. It is made on the principle of a

Reverdin's needle, but blunt-pointed. With this the pedicle is transfixed, the ligature caught, and each lateral half of the pedicle then tied. The pedicle is then divided.

The objections urged against the ligature have been based on the alleged danger of sloughing of the stump. The reasons that such apprehensions need hardly be entertained, are pointed out by Mr. Knowsley Thornton. They are that the vitality of the stump is provided for by a central capillary circulation, and also that vascular connections are established by means of adhesions of the stump to the neighbouring peritoneum, and also by the contact of the peritoneum at each side of the ligature favoured by the deep groove made by the ligature into the tissue of the pedicle. It has also been stated that the presence of the ligature favours a hyperæmic condition of the parts, which promotes the adhesive process (Fagan). I should be slow to say that these explanations are altogether satisfactory, but certain it is that if the ligature or ligatures be properly applied, sloughing of the stump is a calamity of which we need not be very apprehensive.

As regards post-operative treatment, it is hard to lay down any definite undeviating rules in consequence of the great variability in the way patients are affected by mental disturbance, before and after the operation, by anæsthetics, and the operation itself. Much, therefore, must be left to the surgeon's discretion, in the exercise of which he will be guided by experience and his own instinctive intuition of what is in accordance with the dictates of surgical commonsense. But, speaking generally, I would say that the rules laid down by Ashton should, in the main, be followed. For the first 24 hours, if possible, nothing in the way of food should be given by the mouth; after this peptonised milk in small quantities or koumiss, and later on chicken broth or carefully-made clear beef-tea; and for a drink, milk in iced soda or potash water will answer best in the majority of cases. For persistent gastric irritation what answers best is a small quantity of dry champagne well iced, or iced soda-water with a teaspoonful of brandy. All drugs should be avoided. In such cases rectal feeding should be resorted to until the tendency to vomiting ceases.

The cases on which I have based the preceding remarks are doubtless few in number in comparison with the stupendous statistics of this operation published by some practitioners. Still the cases will, I think, strengthen the view I hold that the operation should no longer be regarded as belonging exclusively to the limited province of the specialist, but may be undertaken with confidence in the great majority of instances in a general surgical hospital, the hygienic surroundings being suitable, and the operator one who works conscientiously and faithfully, and is possessed of judgment and ordinary manipulative dexterity.

ART II.—*A Case of Purulent Pericarditis treated by Drainage.*[a]

By JOSEPH O'CARROLL, M.D., F.R.C.P.I.; Physician, Richmond, Whitworth, and Hardwicke Hospitals.

IN eighty cases of paracentesis pericardii collected by Dr. Samuel West (*Med. Chir. Trans.*, Vol. LXVI., 1883), thirteen were instances of purulent pericarditis, and of these only two recovered—one a case of his own, the other recorded by Prof. Rosenstein. These two were the only ones which had been treated by free incision and drainage. I have not looked up medical literature for subsequent records, but incidentally I have come across a case of pyopericardium detailed by Dr. Hermann Bronner (*Brit. Med. Journal*, Feb. 14, 1891), which presents many resemblances to my own case in both history and treatment. I shall give the history of my case as briefly as is consistent with a fair presentation of it:—

CASE.—Christopher S., aged twenty, a casual labourer, of intemperate habits, no fixed address and often without the means to procure a lodging—

1st day.—Was suddenly seized on the night of the 19th November, 1895, with great pain in his right side.

2nd day.—He was admitted to the Whitworth Hospital next day, which I shall call the second day of his illness. He was a thin, querulous, ill-nourished man. I found the right side of his chest as resonant as the left, but the expiratory sound seemed

[a] Read before the Medical Section of the Royal Academy of Medicine in Ireland, on Friday, May 8, 1896.

slightly prolonged and vesiculo-tubular in character, especially at the right interscapular area—no crepitus or creak. Diagnosis—right lobar pneumonia.

4th day.—A patch, giving tubular breath sounds in the infra-scapular area. Otherwise no further localising signs.

6th day.—Had two attacks of epistaxis, with relief of a headache of which he had been complaining.

8th day.—Crepitus noted for the first time, at right interscapular area: suggestive of *crepidus redux*. Over the remainder of the lung, breath sounds seem more puerile and percussion sounds more tympanitic than on left. There is, in fact, no indication of a localised or delimited lobar dulness. At the infra-clavicular area, however, there is a patch of moderate dulness, and at the sternal end of the first intercostal space there is a fine crepitus with inspiration.

10th day.—He complained of pain in left infra-mammary area; pleuritic friction sound audible there. The area of præcordial dulness reaches 3rd rib. From this and a diminution in intensity of heart sounds and impulse, it was concluded that he had a moderate pericardial effusion. Morphin, $\frac{1}{6}$ grain hypodermically, relieved the pain, but it had to be renewed on each of five or six following evenings. Turpentine punch, and other stimulating expectorants were in use at this time.

14th day.—A second attack of epistaxis.

17th day.—Crepitations over the whole area corresponding to right lower lobe. Complaining of pain in his epigastrium.

During the next three days there was a great fall in temperature and pulse-rate without any diminution in number of respirations. Temperature fell from 103·4° and pulse from 156 to 97·5° and 60 respectively, while the respirations remained at 52.

20th day.—These latter figures were taken during my visit on the 20th day. It was manifest that we had to deal with some grave interference with, or inhibition of, the heart, toxic or mechanical or both. I was rather inclined to the theory of a toxic absorption from the lung, although attention was continually paid to the suspected pericardial effusion. During the next few days the pulse-rate increased to an average of about 120, while respirations fell below 50; the temperature stayed about 99°.

26th day.—On the 26th day, examination revealed that the right upper lobe was still dull; that the præcordial dulness extended to the upper border of left third rib, half an inch to the right of the sternum, in the 5th space, and half an inch outside the left nipple; and that the sounds were unduly faint.

29th day.—By the 29th day dulness had extended half an inch farther to right of sternum. The patient stated that pressure in the dull area, and especially in the infra-sternal notch caused him pain, and he complained that he felt his heart jumping. His skin had a leaden hue of partial cyanosis. The pericardium was aspirated in the 4th left intercostal space, about midway between sternum and nipple, or perhaps rather outside this point, and pus to the amount of 30 oz. was withdrawn. This gave much relief; the epigastric tenderness was greatly diminished; the heart sounds became much more audible, and the dull area was reduced in its transverse measurement, though not in its vertical one.

On the 34th day, as I was satisfied that the dull area was again increasing, I had Sir Thornley Stoker to incise the pericardium for me. He did it at my aspiration puncture in the 4th space. There was a free outflow of pus, and no drainage tube was inserted till the next day but one (36th day).

At this date Dr. O'Sullivan, our pathologist, found Fränkel's diplococcus in the pus discharged from the wound.

From this onwards the patient had considerable relief, except for the dressing of the pericardial wound, which gave him always some pain. The introduction of the drainage tube had frequently to be preceded by dilatation of the sinus which gradually came to point from without backwards and inwards, as the anatomists would say, instead of directly backwards. In the process of dilatation I was able to satisfy myself that the pericardium on the heart was distinctly and painfully sensitive to the touch of the sinus-forceps.

On the 48th day the patient complained of pain in the left side, and we found evidence of some pleural effusion on that side. Fearing an empyema, due either to leakage at the drainage wound or to renewed diplococcus infection, I inserted an exploration needle, and withdrew not pus but clear serum. This was to some extent satisfactory, but it was not very reassuring to find that the left lung, as well as the right, was acting as an impediment to a heart so gravely affected itself. Withdrawal of the fluid gave relief, but it was manifest that the heart was unequal to its work. While we had evidence that the pyopericardium had almost ceased to exist, so small was the daily quantity of pus discharged, it was noticeable that the general condition of the patient was deteriorating, and he finally died by simple failure of the heart on the 64th day of his illness.

The necropsy may be summarised by saying that, posteriorly and laterally, the pericardial layers were firmly adherent; in front

was about a drachm of pus, and on the heart and on the parietal pericardium a fibrino-purulent layer. The pericardium was greatly thickened, each layer averaging perhaps 3 mm. The right lung was tightly bound down by thick adherent pleuræ, and was in a condition of collapse in its lower portion, and of fibrotic induration in the upper; the middle lobe contained a plum-sized infarct. The left lung was adherent to the parietes on the outer and posterior aspect and for a small area anteriorly, while the intermediate pleural cavity contained about 6 oz. of clear serous fluid. The liver was nutmeggy; there were infarcts in both kidneys, and the peritoneum contained a few ounces of flaky yellow fluid.

This case is capable of discussion from so many aspects that I am almost deterred from going into any discussion of it at all. I shall content myself with saying that I consider it a case primarily of acute right pneumonia; that within a very few days the pneumococcus infection extended to the pericardium; that there were superadded to the previous symptoms those dependent not merely on weakened heart but those due to the mechanical bulk of the distended pericardium; that the left lung, having to do most of the work, was yet impeded in its function by passive congestion and a pleurisy, in part adhesive and in part serous; and that, finally, the "last straw" being heaped on by the locking up of the heart in a thick inelastic wrapper by cohesion of the pericardium, the circulation came to an end.

As to the treatment, I am satisfied that the pericardium is as tolerant of free drainage as the pleura, perhaps more so. The temperature, pulse, and respiration records of the case show absolutely no disturbance which could be referred to the drainage. Regular washing out of the pericardial cavity was not resorted to; it did not seem to be required, and as it turned out, obliteration of the cavity was almost complete when death occurred; but I may say that I should have no hesitation in washing out the pericardium if I thought it useful, provided that it was done siphon-wise at minimum pressure and with a perfectly free outlet. In fact, on one occasion in this case I did flush out the pericardium in this manner, using a double drainage-tube, and not an antiseptic but an alkaline fluid (bicarbonate of sodium), in order to thin the pus and make it flow out more easily.

With regard to the site of the incision, I am of opinion

that it would be better in future cases to enter the pericardium closer to the edge of the sternum—say about three-quarters of an inch from it. In that position the knife avoids the internal mammary artery, on the one hand, and the pleura, on the other, while the subsequent drainage sinus is not likely to be as long as when the outer opening is further away from the normal position of the pericardium. In Dr. Samuel West's case the incision was also made rather far out, and a long sinus formed. But in neither his case nor mine was there any leakage into the left pleura; in both cases an adhesive pleurisy in the infra-mammary area had occurred before the initial paracentesis, and this effectually shut off the pleural cavity from the drainage sinus. Dieulafoy's advice, based on observations on the pericardium distended experimentally *post-mortem*, is to puncture in the 5th space about an inch from the left edge of the sternum. In my case both the initial paracentesis and the subsequent incision were made in the 4th space, and this space was also chosen for the drainage incision in the three cases reported respectively by Rosenstein, West, and Bronner.

With regard to the symptomatology of purulent effusion in the pericardium, it may be useful to say a word or two. In my case fever was present, and moderately high during the first eighteen days; then both temperature and pulse-rate fell to normal or thereabouts for ten days, during which time the respirations became more than twice, and for some days three times as frequent as they should be normally. That is to say, that increase of the cardiac area of dulness, with serious quickening of breathing, point to pericardial effusion, and this may be purulent, even though there be no pyrexia.

A large pericardial effusion secondary to pneumonia may be suspected to be purulent, since we know of that sequence in other parts, but we have additional hint of suppuration in præcordial, and more especially perhaps in epigastric, tenderness. The lesson which I particularly desire to draw from the case is that free drainage of a pericardium full of pus is as legitimate and safe a procedure as drainage of an empyema. I have not the smallest doubt that my case would have recovered but for his previous ill-nutrition and the initial disablement of his right lung.

ART. III. — *The Medicine and Surgery of the Homeric Poems.* By JOHN KNOTT, M.A., M.D., Ch.B., and Dip. Stat. Med. (Univ. Dubl.); M.R.C.P.I.; M.R.I.A.; Fellow of the Royal Academy of Medicine in Ireland; &c.

(*Continued from Vol. CI., Page* 411.)

WHEN the incinerated remains of the human body were at last collected for interment, the details connected with their disposition, as in the previous stages, varied with the wealth and importance of the deceased. In some cases the bones were wrapped in fat—this was done with the bones of Patroclus:—

> Κλαίοντες δ' ἑτάροιο ἐνηέος ὀστέα λευκὰ
> Ἄλλεγον ἐς χρυσέην φιάλην καὶ δίπλακα δημόν.
> —*Iliad*, XXIII., 252-3.
>
> His mournful friends in fat his bones enclosed,
> Then in a golden urn they them reposed.

The bones and ashes when collected were deposited with affectionate care in urns, which were made of materials varying with the quality of the deceased—wood, earth, stone, silver or gold. These receptacles were variously named: *κάλπαι, κρωσσοί, λάρνακες, ὀστοδοχεῖα, ὀστοθῆκαι, φιάλαι, σοροί*, &c. When the urns contained the remains of very eminent persons, they were frequently adorned with garlands and wreaths of flowers; more usually they were covered with decorative cloths till deposited in the earth. This practice is referred to in connection with the interment of Hector's remains:—

> Καὶ τά γε χρυσείην ἐς λάρνακα θῆκαν ἑλόντες,
> Πορφυρέοις πέπλοισι καλύψαντες μαλακοῖσιν.
> —*Iliad*, XXIV, 795-6.
>
> —— an urn of gold was brought,
> Wrapped in soft purple palls, and richly wrought;
> In this the sacred ashes were interred.

And a corresponding detail is mentioned in connection with the urn of Patroclus, already referred to:—

> Ἐν κλισίῃ δε ἐνθέντες ἑανῷ λιτὶ κάλυψαν.

In the case of persons who had been bound by very close ties of affection during life, the ashes were sometimes mingled in the same urn for burial. This custom is also illustrated in the case of Patroclus, whose shade, we are

told, appeared to Achilles after death, and begged that his bones would be deposited in the same urn which he designed for the subsequent reception of his own. And upon the death of Achilles, we find that his surviving Grecian friends placed the remains of his friend Antilochus with his—but in mere juxtaposition; while they actually mingled those of Patroclus with the ashes of the friend whom he had best loved during life. The ghost of Agamemnon is made the bearer of this information at their meeting in the shades below:—

Ἐν τῷ τοι κεῖται λεύκ' ὀστέα φαίδιμ' Ἀχιλλεῦ,
Μίγδα δὲ, Πατρόκλοιο Μενοιτιάδαο θανόντος.
Χωρὶς δ' Ἀντιλόχοιο, τὸν ἔξοχα τῖες ἀπάντων
Τῶν ἄλλων ἑτάρων μετὰ Πάτροκλόν γε θανόντα.

—*Odyssey*, XXIV., 76-9.

Within this urn your sad remains are laid,
Mixed with the bones of your Patroclus dead;
In the same Urn Antilochus doth lie,
His bones not mixed with yours, but placed hard bye;
For much you did that worthy chief esteem,
Only Patroclus was preferred to him.

Special ties of consanguinity were sometimes similarly regarded. An instance of this is commemorated in an epigram of Agathias:—

Εἷς δύ' ἀδελφοὺς ὧδ' ἐπέχει τάφος, ἓν γάρ ἐπέσχον
Ἦμαρ καὶ γενεῆς οἱ δύο καὶ θανάτου

Two brothers lie interred within this urn,
Both died together as together born.

And we have, in a later age, Euripides making Admetus declare his resolution to place his remains with those of his beloved wife Alcestis:—

Ἐν ταῖσιν αὐταῖς γάρ μ' ἐπισκήψω κέδροις
Σοί τε θεῖναι πλεύρας. . . .

The Roman practice was similar. Dying lovers thought that the union of their remains after death softened the bitterness of separation. According to Ovid, Thisbe's last request was that she might be entombed with Pyramus:—

Hoc tamen amborum verbis estote rogati,
O multum miseri, meus illiusque, parentes,
Ut, quos serus amor, quos hora novissima junxit,
Componi tumulo non invideatis eodem.

The fact that the shades of the departed were supposed to be still in love with their former habitations, and acutely felt all accidents that happened to the latter, accounts for the religiously anxious care which was taken of the remains of the dead. The invocation that the earth should press lightly on the graves of the beloved remains of friends and relatives, was, of course, derived from this consideration. Menelaus himself is introduced by a later Greek poet fortifying himself against the horrors of death by the reflection that the Gods took care that those who died with honour should have no sense of the pressure of the superimposed earth, while cowards would be crushed beneath it :—

—— εἰ γάρ εἰσιν οἱ θεοὶ σοφοὶ,
Εὔψυχον ἄνδρα πολεμίων θανόνθ' ὑπο
Κούφῃ καταμπίσχουσιν ἐν τύμβῳ χθονί.
Κακοῖς δ' ἐφ' ἕρμα στερεὸν ἐμβάλλουσι γῆς.
Euripid. Helen., 857-860.

For it the Gods (and sure they all things know)
Have due regard for Mortals here below,
They will not, cannot suffer those that die
By the too pow'rful force o' th' enemy,
If they with courage have maintained their post,
And for the public good their lives have lost,
To be o'erburdened with the heavy weight
Of earth; but such as stand aghast at fate,
Base dastard souls that shrink at every blow,
Nor dare to look on a prevailing foe;
They shall (nor is the punishment unjust)
Be crushed and tortured by avenging dust.

Theseus invoked this punishment upon Phædra for her atrocious wickedness :—

—— istam terra defossam premat,
Gravisque tellus impio capiti incubet.

Now that the process of cremation has been brought to such a degree of perfection, there is little doubt that it will retain its popularity with a certain section—probably a very limited one—of the members of our latter-day civilised communities. There seems, however, to be very little likelihood that it will ever regain the popularity which it enjoyed among the classical nations who were so devoted to continuous warfare. There exists, indeed, one

feature connected with the modern process of cremation which must appeal very strongly to the feelings of a certain number of its votaries. It reduces the remains of the dead to a very small and easily preserved quantity of incorruptible matter; and, accordingly, a modern urn is a much more convenient and hygienically perfect receptacle for the *débris* of the dead body than any of the corresponding ones of classical times could ever have been. This renders more convenient, and more pleasant, the retention of the small imperishable portion of the body of a beloved friend or relative. There is at present an English lady of title—an intimate friend of a patient of mine—who on every anniversary of her late husband's death dines alone, with the urn which contains his ashes placed on the dining-table opposite the chair which he used to occupy. This is at least a more delicate tribute to the memory of a lost spouse than was that of the case related by Brantôme, who tells us that in his day—"Une dame de la cour . . . portait en relique les parties génitales de son mari mort, parfumées, embaumées, et renfermées dans un étui d'argent doré." And it indicates a more healthy, and, accordingly, a more lasting form of affection than the rather hysterical action of Artemisia, who swallowed the ashes of her brother-husband in her drink, and immortalised his memory by the construction of one of the world's "Seven Wonders."

Readers of the superstitious and the marvellous will remember the stories of the incombustibility of the heart of Germanicus, and of the great toe of Pyrrhus; whose innate virtues, which had often been displayed to such advantage during life, were found to preserve them even after death from the attacks of the most destructive of all the agencies known to man. To such relics supernatural virtues must necessarily be attributed; we read of a gouty patient, in the burning agony of a paroxysm, crying out:—

> O for a toe, such as the funeral pyre
> Could make no work on—proof 'gainst flame and fire;
> Which lay unburnt when all the rest burnt out,
> Such amianthine toes might scorn the gout
> And the most flaming blast the gout could blow
> Prove but an *ignis lambens* to that toe.

The illustrious author of the *Religio Medici*, in discussing the practice of cremation and "*Urn-burial*," in connection with the pre-Christian Greek ideas of the resurrection of the body and the immortality of the soul, observes:—"Lucian spoke much truth in jest, when he said that part of Hercules which proceeded from Alcmena perished, that from Jupiter remained immortal. Thus Socrates was content that his friends should bury his body, so they would not think they buried Socrates; and regarding only his immortal part, was indifferent to be burnt or buried."

Admirers of the writings of the author of "Robinson Crusoe" will remember that in the course of the "Voyage to the World of Cartesius":—"Designing to run over that whole *Hemisphere* of the Moon that is opposed to *our Earth* . . . we came to the *Lake of Dreams*, on whose Banks we found three separate Spirits, . . . We surprized the two first, stoutly Cursing and Banning their Wives they had formerly in the World. One of which was, that *Hermotimus* mention'd by *Tertullian* and *Pliny*, who leaving his Body abed, to make a Ramble, as his Custom was, his Wife, that did not love him, slipt not the opportunity of calling up her Servants, to whom she shewed, not without tearing her Hair and playing the Madwoman, the Body of her Husband unsoul'd and breathless, and carried the Humour on so well, that the Body was burnt. according to the custom of the Country, before the Soul return'd, who was from thenceforth forced to seek another Habitation. The other Spirit was a *Roman Senator*, whose Name was *Lamia*, whose Wife had trickt out of the World by the same Project, though, a little more it had miscarried. For as he related it, the Soul being returned to look its body, where 'twas left, not finding it, and seeing the Family Mourning, began to smell how the matter stood: It Posted presently to the place where was built the Funeral Pile to burn the Body, and arriv'd there, just as the Fire began to seize it. The Soul thought it inconvenient to reunite herself with it, for fear it might be obliged to be burnt alive, she only mov'd its Tongue, so as many of the Standers by heard these Words twice distinctly repeated, *I am not dead, I am not dead.* But seeing the Masters of the Funeral Ceremonies,

who had undoubtedly received an *Item* from the Dame, unconcerned as 'ere, she left it to be burnt, and came to fix in the *Globe of the Moon*."

With these specimens of physical and moral vagaries connected with the history of the practice of cremation, we close our remarks on that subject, and pass on to the consideration of our author's pronouncements on

THE USE AND ABUSE OF WINE.

Οἰνοβαρές, κυνὸς ὄμματ' ἔχων, κραδίην δ' ἐλάφοιο·

—*Iliad* I. 225.

Ἰδομενεῦ, περὶ μέν σε τίω Δαναῶν ταχυπώλων,
Ἠμὲν ἐνὶ πτολέμῳ, ἠδ' ἀλλοίῳ ἐπὶ ἔργῳ
Ἠδ' ἐν δαιθ', ὅτε πέρ τε γερούσιον αἴθοπα οἶνον
Ἀργείων οἱ ἄριστοι ἐνὶ κρητῆρσι κέρωνται.
Εἴπερ γάρ τ' ἄλλοι γε καρηκομόωντες Ἀχαιοὶ
Δαιτρὸν πίνωσιν, σὸν δὲ πλεῖον δέπας αἰεὶ
Ἔστηχ', ὥσπερ ἐμοί, πιέειν, ὅτε θυμὸς ἀνώγῃ.

—*Id.* IV. 257-263.

Ἀλλὰ μὲν', ὄφρα κέ τοι μελιηδέα οἶνον ἐνείκω,
Ὡς σπείσῃς Διΐ πατρὶ καὶ ἄλλοις ἀθανάτοισι
Πρῶτον· ἔπειτα δέ κ' αὐτὸς ὀνήσεαι, αἴ κε πίῃσθα·
Ἀνδρὶ δὲ κεκμηῶτι μένος μέγα οἶνος ἀέξει,
Ὡς τύνη κέκμηκας, ἀμύνων σοῖσι ἔτῃσι.

—*Id.* VI. 258-262.

Νῦν μὲν κοιμήσασθε τεταρπόμενοι φίλον ἦτορ
Σίτου καὶ οἴνοιο· τὸ γὰρ μένος ἐστὶ καὶ ἀλκή·

—*Id.* IX. 705-6.

Ἀλλὰ πάσασθαι ἄνωχθι θοῇς' ἐπὶ νηυσὶν Ἀχαιοὺς
Σίτου καὶ οἴνοιο· τὸ γὰρ, μένος ἐστὶ καὶ ἀλκή.
Οὐ γὰρ ἀνὴρ πρόπαν ἦμαρ ἐς ἠέλιον καταδύντα
Ἄκμηνος σίτοιο δυνήσεται ἄντα μάχεσθαι.
Εἴπερ γὰρ θυμῷ γε μενοινάει πολεμίζειν,
Ἀλλά τε λάθρη γυῖα βαρύνεται, ἠδὲ κιχάνει
Δίψα τε καὶ λιμός, βλάβεται δέ τε γούνατ' ἰόντι.
Ὅς δέ κ' ἀνὴρ οἴνοιο κορεσσάμενος καὶ ἐδωδῆς,
Ἀνδράσι δυσμενέεσσι πανημέριος πολεμίζει.
Θαρσαλέον νύ οἱ ἦτορ ἐνὶ φρεσὶν, οὐδέ τι γυῖα
Πρίν κάμνει, πρίν πάντας ἐρωῆσαι πολέμοιο.

—*Id.* XIX. 160-170.

There is ample evidence in the Homeric poems, as well as in the writings of the Greek poets of after ages, to show that the practice of their country was decidedly in favour of a liberal use of stimulants by its leading and otherwise responsible men. The Grecian heroes, throughout the

whole of the action of the Iliad, are made to eat and drink heartily, even when their sagest councils were sitting. Nestor himself, the combined Nathan and Solomon of the siege of Troy, appears to have been a hearty drinker during the whole of his long and exemplary, sage career. How well their descendants in the after centuries continued to maintain the Greek reputation for conviviality, is well shown by the language of Plautus:—

> Atque ut cum solo pergræcetur milite.
> —*Truculentus*, Actus I., Scena I., v. 69.

And:

> Dies noctesque bibite, pergræcamini.
> —*Mostellaria*, I., i. 21.
>
> . . . Agite porro, pergite
> Quomodo occoepistis: bibite, pergræcamini.
> —*Id*, *ib.* 61.

So thoroughly have some classical scholars become imbued with this idea, that they attribute some of the highest characteristics which still throw a halo around the memory of the ancient Greek poets and sages to their loyal and practical devotion to the worship of Bacchus. A very high authority on classical lore, and mediæval, as well as ancient, history, has expressed the opinion that "the Greeks were called *Fathers of Wisdom* on account of the excellency of their wines, and lost their ancient lustre by reason of the Turks rooting out their vines." The fact that in Homeric times the Grecian women—both married and maiden—were allowed to indulge in the use of wine, is exemplified by the case of Nausicaa and her companions (*Odyssey*, VI.). Even children, at least the highly-favoured ones, were given wine to promote their growth and strength. This is shown by Homer in his description of the infant training of Achilles; the poet makes Phœnix remind his hero—

> Πρίν γ' ὅτε δή σ' ἐπ' ἐμοῖσιν ἐγω γούνεσσι καθίσσας
> Ὄψου τ' ἄσαιμι προταμὼν, καὶ οἶνον ἐπισχών.
> Πολλάκι μοι κατέδευσας ἐπὶ στήθεσσι χιτῶνα,
> Οἴνου ἀποβλύζων ἐν νηπιέῃ ἀλεγεινῇ.
> —*Iliad*, IX. 488-491.

Such practice is in striking contrast with the rigid domestic discipline of the Romans, among whom the clan-

destine use of wine by a married woman was sometimes punished with death by the enraged husband – the law placing her life completely in his power; and among whom some classical antiquarians would have us believe that the practice of *kissing* was instituted merely for the purpose of detecting the tell-tale odour of secret potations.

Accordingly, the insulting epithet (*οἰνοβαρὲς*), with which Achilles opens his decidedly Billingsgate style of address to the Grecian leader who had enraged him, must have had reference to the *abuse*—and not the moderate *use*—of the national beverage.

The fact that a special deity was created by the Greeks for the purpose of carrying out the single function of the introduction of wine and the regulation of its consumption, gives emphatic corroboration to the copious evidence supplied in the verses of the Iliad and Odyssey to the fact that the free use of wine was a popular indulgence with the members of those wonderful little commonwealths of warriors and philosophers, from the earliest dates to which the records of history or of fable can reach. The revelation of the beneficially exhilarating effects of the fermented juice of the grape was attributed by the Egyptians to their dignified Osiris, and by the Latins to their ponderous Saturn—to each of whom humanity was further indebted for sundry other gifts of national importance. But the Greeks paid the tribute of divine honours to their gay and jovial Bacchus in return for his one great boon to their nation—of having taught them how to banish care and quicken thought by the judicious use of alcoholic stimulants.

We are informed, on the authority of Hecatæus the Milesian, that the *use* of wine was discovered in Ætolia by Orestheus, the son of Deucalion. Accordingly, this original record drops one generation behind that of the discovery of the *abuse* of the same genial beverage by the single progenitor of post-diluvian humanity, as it has been recorded for us in the Mosaic history. It goes, however, almost without saying, that the authorities of Grecian theology differ upon this, as well as upon other leading topics of religious history. Some attribute the discovery of the use of the expressed juice of grapes for purposes of stimulation to Oeneus, the

grandson of Orestheus—from whose name they have derived that of wine (*οἶνος*). Thus, Nicander:—

Οἰνευς δ' ἐν κοίλοισιν ἀποθλίψας δεπάεσσιν
Οἶνον ἔκλησε. . . .

and Melanippides—

Επάνυμος, ὦ δέσποτ', οἶνος Οἰνεως.
[*Athenæus, Deipnosophista*, lib. I.]

The dilution of wine with water was practised in Homer's time:—

Οἱ μὲν ἄρ' οἶνον ἔμισγον ἐνὶ κρητῆρσι καὶ ὕδωρ.
Odyssey, I., 110.

We are told that Amphictyon, King of Athens, was taught by Bacchus himself how to temper wine with water; and that in gratitude for this important revelation he dedicated an altar to that deity under the name of *Ὀρθιος*, which he derived from the circumstance that from that time men began to return from public entertainments sober, and, accordingly, *ὀρθοι* (*upright*). The larger proportion of the Greeks, however, still preferred to take their wine undiluted—this was especially the case with the Lacedemonians. *Εἰς τὸ πῦρ ἐῶσι τὸν οἶνον, ἕως ἂν τὸ πέμπτον μέρος ἀφεψηθῇ, και μετὰ τέσσαρὰ ἔτη χρῶνται*—used to boil their wine upon the fire till the fifth part was consumed, and then, after four years were expired, began to drink it (*Democritus*—in *Athenæus*). The practice of drinking wine without water was very generally known as *ἐπισκυθίζειν*—to act like a Scythian—the Scythians being proverbially hard drinkers.

The Egyptian discovery of the use of wine has been referred to one of their smaller towns—Plinthion. It is of some interest in this connection to note that the latter people used to prepare, for the consumption of the poorer class of drinkers, an intoxicating beverage made from barley. This carries back the superhuman achievements of "John Barleycorn" even further than do the records of our Caledonian annalists.

(*To be continued.*)

PART II.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

The Johns Hopkins Hospital Reports. Vol. V. Baltimore: The Johns Hopkins Press. 1895. Pp. 481.

IN this volume we have three works, all of the very highest order, and of the greatest value and interest.

The first, by Drs. W. S. Thayer and J. Hewetson, gives an exhaustive account of *the malarial fevers which occur in Baltimore*, in the form of an analysis of 616 cases, with special reference to the relations existing between different types of hæmatozoa and different types of fever.

The work, which extends to 218 pages, is divided into several chapters. After a few preliminary remarks, the literature of the malarial parasite and of the fevers caused by it is exhaustively studied. Then follows the general analysis of the 616 cases; an account of the hæmatozoa observed; a general analysis of 544 cases in which the type of organism was clearly distinguished; an analysis of the types of fever associated with infection with the different types of organisms; chapters on the nature and significance of the crescentic bodies of Laveran, on the flagellate bodies, and on the action of quinine. Then follow the general conclusions, which we reproduce as far as our space allows:—

"Malarial fever is rare in Baltimore during the winter months; becomes more frequent as the season advances; reaching a maximum in September. Most cases occur during August, September, and October.

"Any difference between the susceptibility of individuals of different ages and sex depends apparently only on the varying chances of exposure to infection. The relative susceptibility of the negro is two-thirds less than that of the white population. Three varieties of the malarial parasite have been distinguished by the authors—1. The

tertian parasite; II. The quartan parasite; III. The æstivo-autumnal parasite.

"I. The *tertian parasite* requires about forty-eight hours to accomplish its complete development, and is associated with relatively regular tertian paroxysms, lasting, on an average, between ten and twelve hours, associated almost always with the three classical stages—chill, fever, and sweating. Frequently infection with two groups of tertian organisms gives rise to quotidian paroxysms; rarely infection by multiple groups of organisms gives rise to more irregular, sub-continuous fevers.

"II. The *quartan parasite* is an organism requiring about seventy-two hours for its complete development. It is rare in this climate, and is associated with a fever showing regular quartan paroxysms, similar in nature to those associated with the tertian organism. Infection by two groups of the parasites causes a double quartan fever (paroxysms on two days, intermission on the third). Infection with three groups of the parasite is associated with daily paroxysms.

"III. The *æstivo-autumnal parasite* passes through a cycle of development, the exact length of which has not as yet been determined; it probably varies greatly, from twenty-four hours or under to forty-eight hours or more. But few stages of development of the parasite are found ordinarily in the peripheral circulation, the main seat of infection being apparently in the spleen, bone marrow, and other internal organs. Infection with this organism is associated with fevers varying greatly in their manifestations. There may be quotidian or tertian intermittent fever, or, more commonly, more or less continuous fever with irregular remissions. The individual paroxysms last, on an average, about twenty hours. The irregularities in temperature depend probably upon variations in the length of the cycle of development of the parasite, or upon infection with multiple groups of organisms.

"We have not been able to separate two distinct varieties of the æstivo-autumnal parasite, although we feel that more investigation is needed upon the subject.

"The cases of malaria in the spring and early summer are of the milder, more regularly intermittent varieties (tertian and quartan fever); the severe æstivo-autumnal infections beginning to appear only in the later summer, and reaching their maximum in September.

"The coloured race, while showing a relative insusceptibility to malarial infection, is equally susceptible to the

various forms. The infections which occur are, however, more apt to take a simpler, milder course—the single tertian cases, for instance, outnumbering the cases of double tertian fever.

"The majority of all the cases of malarial infection in this climate depend upon the tertian parasite. These tertian infections form the vast majority of all the cases in the first half-year, but occur throughout the malarial season. The majority of infections during the height of the malarial season depend, however, upon the æstivo-autumnal parasite.

"The earliest cases of tertian infection are more commonly single in nature, while as the season advances double tertian infections become more common.

"Nothing in our experience has led us to believe that these varieties of the parasite are interchangeable. They are, we believe, distinct varieties, though closely allied to one another biologically. Combined infections with parasites of different varieties may occur, but they are rare—forming less than 2 per cent. of all the cases which we have observed.

"The crescentic bodies, associated with the æstivo-autumnal parasite, develop from the small hyaline forms. We have seen nothing to support the views of Mannaberg, that they are the result of conjugation We have never seen sporulating forms which we believe to have developed from crescents. We are not, as yet, inclined to accept the view that these are degenerate forms; we believe that their true nature is still undetermined. The nature of the flagellate bodies, which may develop in all types of malarial fever, is not yet determined.

"The specific action of quinine upon these three varieties of the parasite is undoubted. It exerts its influence most strongly when the parasite is undergoing the process of segmentation, before the entrance of the fresh segments into new red corpuscles. It is best administered then just before the beginning of a paroxysm, if we wish to obtain the greatest effect with a single dose. The action is much more rapid and certain in the tertian and quartan fevers than in the æstivo-autumnal infections."

A very complete bibliography is appended, giving references to 359 works, arranged in chronological order. An appendix notices some papers published too late to find their place in the chapter on the literature.

Two beautifully executed plates and several charts illustrate this paper, which cannot fail to rank among the classical works on malaria.

The second work in this volume is "*A Study of some Fatal Cases of Malaria*," by L. F. Barker, M.B. Four cases are detailed—three of æstivo-autumnal malaria and one of double tertian, associated with general streptococcus infection. In connection with this latter case valuable remarks are made on the frequent occurrence of a bacterial infection, such as pneumonia, typhoid, ulcerative endocarditis, erysipelas, with malarial infection, while the latter may also co-exist with other forms of protozoan infection, as dysentery due to amœba coli. In the third case inflammatory and necrotic lesions were found in the liver, giving rise to cirrhotic changes.

Two most suggestive chapters follow—one on the unequal distribution of the parasite in the body in malarial infection, by which much light promises to be thrown on the variety in the symptoms manifested in different cases, and another on phagocytosis in malaria. In this section the numerous objects—red corpuscles, white corpuscles, parasites, pigment, &c., which are found within phagocytes are fully noticed, and the question as to whether latent infection can be explained by the inclusion of parasites in phagocytes is discussed. This paper throughout manifests evidence of the patient industry as well as of the skill and sagacity of the author. It is a very remarkable and most important contribution to pathological anatomy. Four excellent plates illustrate the work.

The third paper is the work of five authors—Drs. Osler, Flexner, Blumer, Reed, and Parsons. It is a continuation of "*The Studies in Typhoid Fever*," contained in the fourth volume of the Hospital Reports, and which we fully noticed some time ago in the *Dublin Medical Journal*. In that Report 229 cases were dealt with; in the present paper 160 further cases are considered. These were treated to conclusion during the fifth and sixth years of the Hospital, to May 15th, 1895. A general analysis and summary of the cases by Professor Osler gives the age, sex, nationality, race, and dwelling place of the patients,

together with the season of the year and the mortality:— In the fifth year 81 cases, mortality 6·1 per cent.; in the sixth year 79 cases, mortality 8·8 per cent. Mortality in whole 160 cases, 7·5 per cent. Of 389 cases treated in the whole six years, mortality 8·7 per cent.; of 356 cases, treated during the last five years since the introduction of the Brand method of treatment, mortality 7·03 per cent.; of 299 bathed cases, mortality 6·6 per cent.

In the second section Dr. Osler analyses the special features, symptoms, and complications which were observed.

As regards the *taches bleuâtres*, of which only two cases were met with, Dr. Osler quotes and apparently endorses the opinion of Dr. Hewetson in favour of the pedicular origin of these marks. It appears that the Austrian soldiers look on the pediculi as bearers of good luck, and these parasites have a market value of from 5 to 10 kreutzers. Relapses occurred in 8·7 per cent., while in 11 cases well-marked transient elevations of temperature occurred during convalescence.

In 12 cases hæmorrhage occurred. Three proved fatal, two of them from perforation. In most cases the bleeding was very slight, and in no case did the fatal result follow directly upon profuse hæmorrhage. Taking the whole 389 cases hæmorrhage occurred only in 5·1 per cent., while perforation caused death in 3·3 per cent. Two cases are detailed where perforation was probable, but recovery took place.

As a result of five years' experience with the *cold bath treatment*, Dr. Osler comes to the conclusion that it appears to save from 6 to 8 in every hundred of cases treated. The general rate of mortality in Europe and America being 15 to 20 per cent. "While I enforce the method for its results, I am not enamoured of the practice. I have been criticised rather sharply for saying harsh words about the Brand system. To-day, when I hear a young girl say that she enjoys the baths I accept the criticism and feel it just; but, to-morrow, when I hear a poor fellow (who has been dumped, like Falstaff, 'hissing hot' into a cold tub) chattering out maledictions upon nurses and doctors, I am inclined to resent it, and to pray for a method which may

be, while equally life-saving, to put it mildly, less disagreeable."

Dr. G. Blumer treats of the occurrence of *pus in the urine in cases of typhoid.* From the urine four bacilli were isolated usually in pure culture—the colon bacillus, the typhoid bacillus, the staphylococcus albus, and an unidentified coccus. These may reach the urine from the kidneys or bladder. In the kidney their source may be the typhoid lymphomata, to which the presence of typhoid bacilli are always due, or a definite nephritis, while the bladder may be infected from the implicated intestine, as has been proved experimentally. On the whole, pyuria, although fairly common, is not a serious complication. The presence of typhoid bacilli in the urine makes the patient a source of danger.

Perhaps the most important section is that in which Dr. Flexner describes *certain forms of infection in typhoid fever.* From these cases it appears that typhoid bacilli may cause a general septicæmia, and, without the intervention of other organisms, produce suppuration; that mixed infections frequently occur in typhoid, and that in the later stages typhoid bacilli may be absent, while infection by colon bacilli from the injured intestine may occur. Our space forbids us to give any summary of these cases, but their history and the remarks of the author cannot be too strongly recommended to the notice of every one interested in pathology.

Dr. Reed shows that the so-called *lymphoid nodules in the liver* are really spots of necrosis of liver cells, which are replaced by well-defined areas of localised connective tissue; that the lesions are in some way due to the typhoid bacilli, and that similar lesions can be caused in the livers of rabbits by injection of pure culture of typhoid bacilli into a mesenteric vein.

Dr. Osler treats of *neuritis following typhoid fever*, and Dr. Parsons of the *post-typhoid bone-lesions.* These take the form of periostitis, with or without necrosis and suppuration. In the latter cases the typhoid bacilli are found in the pus, either alone or mixed with other organisms. The length of time during which the wound remains un-

contaminated, and during which the typhoid bacilli may be present is remarkable. Thus Sultan found the typhoid bacilli in pure culture in a sinus which had been discharging six years, and Buschke reports an abscess of the rib in which typhoid and other organisms were found after seven years.

Finally, Dr. Osler has two chapters—one on *chills (rigors) during typhoid*, and the other an *analytical study of the twelve fatal cases.*

The Treatment of Phthisis. By ARTHUR RANSOME, M.D., M.A. (Cantab), F.R.S.; Consulting Physician to the Manchester Hospital for Consumption and Diseases of the Chest and Throat; Examiner in Sanitary Science at Cambridge and Victoria Universities. London: Smith, Elder & Co. 1896. 8vo. Pp. 237.

"THE present work has been written in the hope that its contents will increase the courage of the physician in face of this terrible malady (phthisis), and will also provide him with arms with which he may successfully combat it." It "is based upon experience gained partly in private practice, and partly during long and constant work at the 'Manchester Hospital for Consumption and Diseases of the Throat.'"

The foregoing quotations from his Preface indicate the nature and scope of Dr. Ransome's latest contribution to the literature of both Preventive and Curative Medicine.

Dr. Ransome brings to his task a ripe experience. His "Milroy Lectures," delivered in 1890, were on "The Causes and Prevention of Phthisis." Those lectures were delivered before Koch's discovery of tuberculin in 1890, but with a full knowledge of the causal relationship which existed between the *Bacillus tuberculosis* and pulmonary consumption, and which had been established by Koch in the year 1882.

The work now before us consists of fourteen chapters and an appendix. At the outset the author avows himself a believer in the curability of phthisis either by the "Vis medicatrix Naturæ" or by the "Ars Medendi" (page 10).

We share his faith, and look forward to the time when his creed will be universally accepted.

The essentially practical character of the book is early shown, for the second chapter is on the ætiology and pathology of phthisis in *relation to treatment.* When we have read this chapter, we cannot help saying to ourselves, "Well, after all, what we should do is to help Nature in her vigorous and unceasing efforts to combat the disease." Chapter III. clearly points out the limits of infection, and its whole tendency is to allay the "consumption-scare."

Dr. Ransome is, like Laennec, a believer in re-infection in phthisis. And, indeed, his arguments are incontrovertible. It may be interesting to recall the fact that the great French physician himself fell a victim to a second infection more than twenty years after the first. In 1799, while examining some tuberculous vertebræ, he slightly grazed the forefinger of his left hand with the saw. Within a few days a typical tuberculous neoplasm developed, which he cauterised with the deliquescent chloride of antimony and so eradicated the tumour. In 1819 he was apparently quite well. In 1822 he had to give up his practice owing to phthisis, of which he died in 1826.

When discussing the preventive measures to be adopted against phthisis, Dr. Ransome quotes his own experience as to the freedom from the disease enjoyed by dwellers on a dry, sandy subsoil, such as that upon which the town of Bowden, in Cheshire, stands. At page 65 there is a sentence which should be written in letters of gold. It runs as follows:—

> "Fresh air, day and night, must be admitted to all living rooms and bedrooms; and the present foolish dread of what is called 'night-air' must be overcome. Light, too, which is now often excluded from a fear of spoiling the furniture, &c., must be admitted as freely as possible; and must come to be regarded as—what it is, indeed is—Nature's best gift for the prevention of disease."

Speaking of prophylaxis, Dr. Ransome thinks "it would be a good thing, both for the consumptive and for his doctor, if a fixed monthly or annual payment could be substituted for the charge per visit. There could then be

no unworthy suspicion as to the motive for constant attendance and supervision." (Page 74.)

The subject of treatment takes up considerably more than half the book. The question is discussed under the headings: Prophylaxis, hygienic measures, open-air and climatic treatment, medicinal treatment, inhalations, treatment of tubercular laryngitis, abscesses, and so on, and of symptoms and complications. A final chapter (XIV.) is on the treatment of different forms of phthisis. An "Appendix" includes a leaflet on the Prevention of Consumption, and recommendations as to the cleansing of rooms occupied by consumptive patients, which have been adopted by the Bournemouth Medical Society.

Sound, judicious, and practical are the author's views on treatment. Dr. Ransome has long since won his spurs in the domain of Preventive Medicine. He is equally able in that of Curative Medicine. This book is worthy of his high reputation in both spheres.

Transactions of the Royal Academy of Medicine in Ireland. Vol. XIII. Edited by WILLIAM THOMSON, M.A., F.R.C.S., General Secretary; Surgeon to the Richmond Hospital. Dublin: Fannin & Co. 1895. Pp. 464.

THE Report of the Academy for 1893–94 laments the loss of Drs. Barton, M'Veagh, and Baxter. Since it was signed the Academy and the profession have sustained an even greater loss—its ex-President, Dr. G. H. Kidd, having passed away.

The quality of the papers read before the Sections—with many of which our own pages have made our readers familiar—is nowise deteriorated. We cannot but think that opening Addresses by the General and the Sectional Presidents might be delivered with advantage. In the Section of State Medicine a Presidential Address might be made a valuable means of instructing the public, as well as the profession, in sanitary subjects. In numbers the Academy shows no increase, we regret to observe. We regret still more to find that it is losing the very feeble

attractive powers it had upon the students. At the close of the year *two* Student Associates were on the roll!

The volume opens with a very interesting and practical paper by Dr. J. W. Moore, "A Case of Small-pox and its Lessons." He places on a scientific basis the empirical treatment of variola by exclusion of light from the pustulated surface, or by John of Gaddesden's method—surrounding the patient with "red curtains, red walls, and red furniture of all kinds." Protection from the action of the actinic rays prevents, there is good reason to believe, pitting and disfigurement, and is otherwise favourable to recovery. The paper concludes by pointing out that the recent Dublin epidemic confirmed the empirical law connecting atmospheric temperature with the prevalence of variola—"When the mean temperature of the air falls below 50°, small-pox has a tendency to assume a distinctly epidemic form."

Of no less interest and importance is Mr. Kendal Franks' paper, read in the Surgical Section, on "Adenoid Vegetations in the Naso-Pharynx," a subject which does not always receive the attention it deserves. The removal of these growths is an operation of no special difficulty, and is followed by most satisfactory results. We fully endorse the author's concluding words:—"There are few operations which can show so much after-good to the patient as the removal of adenoid vegetations from the naso-pharynx."

Some recent abuses of the system of boarding-out lunatics have tended to discredit it slightly, and we are glad to find it strongly advocated by so experienced an authority as Dr. Conolly Norman, in a paper read before the Section of State Medicine, on "The Domestic Treatment of the Insane." He shows that the Gheel system is imitable, and has already been imitated with success. A colony has been established at Lierneux, in the province of Liège, in which, in 1892, 349 patients resided. In France, near Bourges, a colony for senile dements gives excellent results. "The poor old men and women seem to be generally happy and contented. Few of them express any desire to return to the asylum; they appear to be well cared for; no accident, no scandal has occurred; they do little work, being generally physically unfit for much exertion. It has been justly said of this

particular colony that it is a colony not of work but of rest." In Berlin a system similar, but in some respects superior, to the Scottish boarding-out has been adopted with great success, financial and sanitary.

In the discussion which followed Dr. Winifred Dickson's paper (in the same Section) on the "Need for Women as Poor-Law Guardians," the opinion of the speakers seems to have been unanimously favourable to her views—in which we ourselves heartily concur. There are few boards of guardians that would not be the better of such "sweetness and light" as educated women would impart.

Twentieth Century Practice. An International Encyclopædia of Modern Medical Science by Leading Authorities of Europe and America. Edited by THOMAS L. STEDMAN, M.D., New York City. Volume V. Diseases of the Skin. London: Sampson Low, Marston & Co., Limited. 1896. Large 8vo. Pp. 905.

YET another instalment of this great work. The subject matter of this fifth volume of Twentieth Century Practice must enlist the interest of the profession in all parts of the world. Nor will that interest be lessened when the reader glances down the list of contributors. Charles W. Allen, of New York; John T. Bowen, of Boston; L. Brocq, of Paris; L. Duncan Bulkley, of New York; H. Radcliffe Crocker, of London; John Nevins Hyde, of Chicago; Moriz Kaposi, of Vienna; H. Leloir, of Lille; Douglass W. Montgomery, of San Francisco; Arthur Van Harlingen, of Philadelphia; and Henry H. Whitehouse, of New York—such is the galaxy of dermatological talent which Dr. Stedman has gathered together for the purposes of this volume.

It is possible to write only in general terms of the merits and demerits of their work. Glancing through the volume, we cannot resist the impression that a work on skin diseases should be more liberally illustrated than this is, and that black and white sketches fail to do justice to the appearances in such an affection of the skin as xeroderma pigmentosum (pages 730 and 731). Eczema, psoriasis, pemphigus, the various forms of erythema, and other like diseases are not

illustrated at all. Surely it would have been possible to insert in this large and (so far as subject-matter and letter-press go) most interesting volume half a dozen artistic coloured illustrations of skin disease.

Having said so much we have almost exhausted our hostile criticism of the volume before us. We notice, however, that Dr. Bowen, when writing on benign neoplasms of the skin, describes molluscum epitheliale under Bateman's old name "molluscum contagiosum." It is indeed true that the contagious origin of the affection may now be regarded as proved. Dr. Bowen endorses it without hesitation, and apparently with good reason. Nevertheless, the name molluscum epitheliale is more scientific, more instructive, and contrasts the disease better with molluscum fibrosum.

The first article is by Dr. Allen, who writes on the anatomy of the skin and its appendages. "Parasitic Diseases" are done full justice to by Dr. Duncan Bulkley, whose name alone is sufficient to command the reader's attention. This article is the best illustrated in the volume. Erythematous affections are described by Dr. Henry Whitehouse, of the New York Skin and Cancer Hospital. Dr. Nevins Hyde takes eczema and dermatitis for his topic. In discussing the ætiology of eczema the author makes no mention of contagion, and yet we think we have seen an attack of eczema not infrequently arise from contagion, or, perhaps it would be more accurate to say, inoculation.

Under the heading "Dermatitis" Dr. Nevins Hyde includes an instructive section on "Feigned Diseases of the Skin."

Dr. Radcliffe Crocker contributes articles on squamous affections of the skin, and on its phlegmonous and ulcerative affections. Dr. L. Brocq writes on its papular affections; Dr. Kaposi on xeroderma pigmentosum; Dr. Douglass Montgomery on diseases of the hair and nails; Dr. Arthur Van Harlingen on diseases of the sebaceous and sweat glands; and Dr. Whitehouse on bullous, erythematous and pustular affections.

M. Leloir, of Lille, contributes a learned article on Dermatoneuroses, in which he of necessity travels again over some of the ground covered by his co-authors. His treatise is very elaborate. He divides the neuroses of the skin into

the purely sensory, the purely motor, the vascular, and the trophic. To these he adds a fifth class, the glandular dermatoneuroses, which may be regarded as a sub-group of the class of trophic dermatoneuroses, or cutaneous trophoneuroses. These glandular dermatoneuroses are cutaneous diseases of nervous origin, characterised by a disturbance of the glandular secretion, secondary to a functional disorder of the nervous system. This group of maladies affects the sudoriparous glands (hyperidrosis, anidrosis?), sebaceous glands, hair follicles, and nails.

We are sorry to learn from an editorial note, at page 881, that, in consequence of severe injuries received in a railway accident, while he was engaged in the preparation of this article, Professor Leloir was unable to finish the chapter on the Trophoneurosis. The portion of the section on the pathogeneses of these affections which follows "Acrodynia" (page 835) was compiled, under his supervision, however, from his previous writings by two of his assistants.

Enough has been said to prove that the present volume fully maintains the character and *prestige* of "Twentieth Century Practice."

A System of Medicine by Many Writers. Edited by THOMAS CLIFFORD ALLBUTT, M.A., M.D., LL.D., F.R.C.P., F.R.S., F.L.S., F.S.A.; Regius Professor of Physic in the University of Cambridge, &c., &c. Volume I. London: Macmillan & Co., Ltd. New York: Macmillan & Co. 1896. 8vo. Pp. 977.

"To Sir J. Russell Reynolds, Bart., M.D., F.R.S., President of the Royal College of Physicians, this work is dedicated in memory of thirty years of friendship by the editor"—thus gracefully, and pathetically when viewed in the light of very recent events, the resignation of the Presidency of the Royal College of Physicians by Sir Russell Reynolds, and his subsequent death—does the distinguished Regius Professor of Physic in the University of Cambridge launch the first volume of a great work upon the limitless ocean of medical and scientific study.

The dedication is appropriate, because the present work is

destined to prove the lineal successor of "Reynolds' System of Medicine," which taught so many generations of physicians through so many years the principles and practice of their great Art—the *Ars medendi.*

The present volume consists of a learned introduction by the editor, of Division I.—Prolegomena, and Division II.—including an instalment of the fevers. Of this last, Part I. is an article on insolation or sunstroke by Sir Joseph Fayrer, and Part II. is devoted to the "Infections"—a subject treated of only in part in this first instalment of the work. A list of authorities and a well-arranged index conclude the volume, which runs to nearly 1,000 pages of clear and legible type. Paper and binding leave nothing to be desired in point of style and finish. We should not omit to mention the high order of excellence which characterises the greater number of the illustrations, several of which are delicately executed in colours.

Some forty-three different writers have taken part in the authorship of the volume before us. Their handywork has been blended together into a harmonious whole with great skill and success by the editor, whose no light task has been performed with sound judgment based on a ripe experience of men and letters.

The list of authors includes many of the best known names in Great Britain, and the United States of America are represented by John S. Billings, Librarian to the Surgeon-General's Library and Professor of Hygiene in the University of Pennsylvania; by Dr. John K. Mitchell, Lecturer on General Symptomatology in the University of Pennsylvania; and by Dr. Frank Fairchild Wesbrook, Professor of Bacteriology in the University of Minneapolis. Canada is well represented by Dr. George John Adami, Professor of Pathology in M'Gill University, Montreal. Brigade Surgeon Lieutenant-Colonel Kenneth Macleod, late Professor of Surgery in the Medical College of Calcutta, takes part in writing the article on Cholera asiatica, in which Mr. Ernest Hart, Dr. S. C. Smith, Dr. Kanthack, and Mr. J. W. W. Stephens, the Treasurer's Student in Pathology at St. Bartholomew's Hospital, co-operate. There is not an Irishman in the entire list, but we understand that this will

not be so in coming volumes—it is an accident, not an mission.

Miss Amy Hughes, superintendent of nurses in Bolton Union Workhouse, late superintendent of the Central Training Home, Queen Victoria's Jubilee Institute for Nurses for the Sick Poor, contributes a long article on "Nursing." It runs to 34 pages, but is not a bit too long. We cannot forbear to quote two passages from the opening sentences of this article:—

"Order, method, punctuality, obedience are part of the groundwork of a training school; but to these must be added thoroughness, promptness, accuracy in observing, and correctness in reporting observations, and a loyal attitude towards doctors and patients. The whole art of trained nursing depends upon the maintenance of this attitude. Nurses are bound, by their very position, to render loyal obedience to medical men. It is not their duty to suggest or initiate treatment of any kind, except by express permission or in some sudden emergency. They have no responsibility whatever save that of faithfully obeying orders, and the higher the discipline the more readily this is recognised. With regard to patients, the gravest fault, short of negligence, is love of gossip, personal or professional. To talk to patients about their ailments and treatment, to describe other cases to them, to indulge them in medical histories, and to discuss the comparative merits of medical men, work infinite harm, especially to those of nervous temperament who are chiefly disposed to seek such confidences. It is true a nurse is often at a loss to interest her patients, but to gratify unwholesome curiosity, to criticise methods of treatment, or to reveal private affairs learned in the course of her profession, is most reprehensible." (Page 423.)

When Miss Hughes expresses such sentiments, the editor's somewhat apologetic footnote seems hardly to be called for. "I have asked Miss Hughes," he says, "to write this article for me in order that medical men may know what to expect of their nurses—not that I for a moment suppose any one of my readers to be unfamiliar with the smallest of these bedside services."

Immediately before this article on Nursing, there is an admirable disquisition on the diet and therapeutics of children by Dr. Eustace Smith. To one statement in it we beg leave

to take exception. He says (page 422): "Antipyrin, like quinine, children take well." That this statement refers to the effect of the drug, not to the fact that children do not *object* to take it, is evident from this sentence which occurs earlier in the article: "Children take quinine with great benefit if the dose be not too small." Now, our experience of antipyrin, or phenazone, is that it is a dangerous remedy in childhood—as dangerous, probably, as opium—and that it depresses unduly and produces cyanosis even in small doses. No doubt, so good an authority as Dr. William Whitla holds that phenazone may be given hourly for 3 doses in the febrile diseases of childhood ($1\frac{1}{2}$ grains per year of the child's life); but in the first place reduction of temperature is in itself of dubious advantage if not sometimes positively hurtful, and in the next place it is not reassuring to be told by Dr. Whitla that "giddiness and collapse (from phenazone) can be successfully treated by atropine hypodermically."

In most cases one author undertakes each special subject. In some instances, however, several writers co-operate. For example, the article on Diphtheria is written jointly by four authorities. Dr. Samuel Gee defines the malady and supplies its clinical description; Dr. R. Thorne Thorne writes on its ætiology and prophylaxis; Dr. A. A. Kanthack on its bacteriology and pathology; Dr. W. P. Herringham on the serum-treatment of the disease.

Similarly, the article on Cholera asiatica is the joint work of as many as five authorities, whose names we have already given. Without any wish to disparage their colleagues, we think that the most interesting part of this article is that for which Messrs. Kanthack and Stephens are responsible—namely, the Bacteriology of the disease. The subject is still a *quæstio vexata*, "and" (say the authors), "however impartial our endeavour, we cannot at present find a satisfactory solution of the matter." Their conclusions may be summed up somewhat as follows: Vibrios, possessed of great variability, both morphologically and biologically, yet presumably descendants of one species, are constantly associated with the disease and are frequently found in pure culture to the exclusion of other organisms. The unity or specificity of these vibrios is

not proved by various tests; but the circumstantial evidence is fairly strong—indeed, so far as our present knowledge goes, almost convincing. In a word, the various lines of argument all converge towards one point—namely, the unity and specificity of the choleraic vibrios.

The ever-fresh and always attractive subject of Enteric Fever receives ample justice at the hands of Dr. Julius Dreschfeld, who brings to his task a ripe experience as physician to the Manchester Royal Infirmary and professor of medicine in the Owens College, Victoria University.

In strongly recommending this work to the members of the profession, we take the liberty of congratulating the Regius Professor of Physic in the University of Cambridge on the large measure of success which has so far attended upon his editorial labours. We trust he may be equally fortunate in regard to future instalments of this splendid work—a work which faithfully reflects the position occupied by the Science and Practice of Medicine in the closing years of the last decade of the Nineteenth Century.

Burdett's Hospitals and Charities, 1896, *being the Year-Book of Philanthropy*. By HENRY C. BURDETT. London: The Scientific Press (Limited). Crown 8vo. Pp. 955.

WE agree with Mr. Burdett that this work is correctly described by its sub-title: "The Year-Book of Philanthropy." Last year, it was our duty—and we did it—to criticise several errors which had crept into the portion of the book relating to Irish hospitals. It is a real pleasure to state that nearly all the slips we noted have been corrected in the present issue. This experience leads us to accept at once the author's statement that "every year we present our readers with an entirely new book—a new book not only from the circumstance that the first 250 pages or so contain original matter, but because every figure in it is, as far as possible, new, and every fact has been carefully tested in order to ensure accuracy throughout its 1,000 pages."

Nor is the information garnered in the pages of this work confined to the charitable institutions of the United

Kingdom. It is imperial—and more than imperial—in its scope, for it carries us through the hospitals and asylums, not only of the Colonies and the Indian Empire, but also of the United States.

Again, we heartily congratulate Mr. Burdett on the accomplishment of the useful yet laborious task he has set before him in the writing of his "Year-Book of Philanthropy."

Elementary Anatomy and Surgery for Nurses: A Series of Lectures delivered to the Nursing Staff of the West London Hospital. By W. M'Adam Eccles, M.S. Lond.; F.R.C.S. Eng. London: The Scientific Press, Limited. 1896. Crown 8vo. Cloth. Pp. 150.

The object of this book, the author states in his preface, is, first, "to set forth the more important points in anatomy which it is requisite for a nurse to know." It also deals with certain "purely surgical facts with which all nurses should be familiar."

We would not have thought any book necessary in order to teach nurses the small amount of anatomy which could possibly be of practical use to them, and, having read this book, we see no reason to alter our opinion.

How can the author imagine that it is of use to a nurse to know the weight of the brain or spinal cord, the articulations of the cranial bones, or that the pancreas has a head, body, and tail, and lies behind the stomach! It is scarcely too much to say that a nurse might be ignorant of almost all the anatomy set forth in this book without disadvantage to her work.

We have equally little sympathy with the attempt to teach nurses "purely surgical facts."

In his chapter on Inflammation the author speaks of the "necessity for a thorough fundamental knowledge of the methods whereby Nature performs her work of healing and the enemies with which she has to combat." Does he suppose, then, that a nurse should become both pathologist and bacteriologist? Again, does he really think it requisite for a nurse to know the six degrees of burns or the varieties of

nævi? This all seems to us sufficiently absurd, but the climax of folly is reached in the last ten pages, where we find an account of "reef knots" and "granny knots," and of surgical instruments which "it is well that a nurse should be acquainted with"! Amongst these we find a hernia director, a common scalpel, and a Hagedorn's needle-holder!

Indeed, we cannot congratulate the writer from whatever point of view we regard his work. The book lacks clearness, is devoid of all evidence of originality or careful thought, and is not even free from actual errors. For instance, he describes the posterior chamber of the eye as lying behind the lens; he speaks in two places of a system*atic* circulation, and describes cartilage in the eyelids. That "the sense of touch resides for the most part in the skin" is a somewhat remarkable statement.

The volume has many illustrations, but we do not think they add much to its usefulness. In conclusion, we do not recommend this book to nurses, unless, indeed, they wish to discover how utterly futile must be any attempt on their part to wander from their own proper province.

ÆTIOLOGY OF GRAVES' DISEASE.

THE *Medical Record* of 18th April prints a paper read by Dr. Francis Kinnicut before the Practitioners' Society of New York, in which he advocates reversion to the original hypothesis of the ætiology of Graves' Disease—that it is primarily a disease of the thyroid gland. This view is based, he says, on "experimental investigations on the functions of the thyroid gland and the knowledge of the vital importance to the economy of its physiological secretion acquired very lately through observations in myxœdema and the closely allied conditions of cachexia strumipriva, cretinism, and fœtal rickets." "A preponderance of both pathological and clinical evidence is in favour of the view that the symptom-complex of Graves' disease finds its most satisfactory explanation in a general toxæmia of the nervous system, the result of quantitative or qualitative changes, or both, in the secretion of the thyroid gland;" "the existence of a neurotic predisposition" being probably necessary. This paper, with its elaborate table of 99 cases treated by operation, is well worth study.

PART III.

SPECIAL REPORTS.

REPORT ON GYNÆCOLOGY.

By E. Hastings Tweedy, Fellow and Examiner, Royal College of Physicians of Ireland; Gynæcologist to Dr. Steevens' Hospital; late Assistant Master, Rotunda Lying-in Hospital.

I. The recent Improvements in Gynæcological and Obstetrical Journals.

II. A new Method of Extirpation of a Myomatous Uterus by Continuous Incision from left to right.

III. A new Method for the Treatment of Cystitis in the Female.

IV. Vaginal Bacteria in relation to Antiseptic Irrigation.

V. Incontinence of Urine.

VI. Some general considerations on Intra-uterine Diagnosis and Treatment.

I. Though but a short time has elapsed since a Review of Gynæcology appeared in this journal, yet, so rapidly has this branch of surgery advanced, much material of interest has accumulated since its publication.

No greater indication of vigour is supplied than the enlarging and perfecting of text-books and journals devoted to any particular branch of science, and nothing is more remarkable than the advances made recently in midwifery and gynæcological literature.

The journals devoted to these branches in the English language are now both numerous and of a very superior order.

In the first place, we wish to call our readers' attention to the enormous improvement that has taken place in the *British Gynæcological Journal* since the editorship devolved on Dr. Leith Napier. It may now fairly be said to teem with useful information, and to afford its readers a very complete summary of work done, not only in the British

Isles, but also in the great Continental centres of learning. This useful innovation will, doubtless, prove of immense value to those not conversant with many foreign languages.

The *American Gynæcological and Obstetrical Journal* announces in its March number a new departure which has the merit of being not only novel but likewise of great practical interest: this is to publish each month an original article written specially for the journal by foreign gynæcologists of note; and, so far as possible, each article will discuss the subject with which the special writer's name is identified.

We cannot pass on without a word of praise for the general efficiency of this publication, which seems to improve more and more each month; and the moderate price for which it can be obtained brings it within the reach of all.

The *American Journal of Obstetrics and Diseases of Women*, too, needless to say, still sustains its reputation as a publication second to none of its kind in the English language.

It likewise has undergone great changes for the better since the commencement of the year, by the addition of some fifty pages, devoted entirely to a review of current literature abroad.

The *Annals of Gynæcology and Pædiatry*, another special journal published in Boston, also merits praise in passing. It can be obtained for the small sum of 15s. a year, and always repays perusal.

II. It is with much interest we have read (*Bulletin of the Johns Hopkins Hospital*) Howard Kelly's description of his new method for extirpating a myomatous uterus.

He claims that by it—

1. A saving is secured of from 60 to 80 per cent. of the time occupied in the enucleating stage of the operation.

2. Intra-ligamentous myomata and those beneath the pelvic peritoneum can with ease be enucleated.

3. Inflammatory masses posterior to the broad ligament are easily enucleated.

4. A displaced ureter is under control, and can be kept out of the way during the operation.

The operation consists in the following steps:—

1. Opening the abdomen.

2. Ligation of the ovarian vessels near the pelvic brim,

either on the right or on the left side, clamping them towards the uterus and cutting between.

3. Ligaturing the round ligament of the same side near the uterus, cutting it free, and connecting the two incisions in order to open up the top of the broad ligament.

4. Incision through the vesico-uterine peritoneum, from the severed round ligament across to its fellow, freeing the bladder, which is now pushed down with a sponge, so as to expose the supra-vaginal cervix.

5. Pulling the body of the uterus to the opposite side to expose the uterine artery low down on the side opened up. The vaginal portion of the cervix is located with thumb and forefinger, and the uterine artery seen or felt is tied just where it leaves the uterus. It is not always necessary to tie the veins.

6. The cervix is now cut completely across just above the vaginal vault, severing the body of the uterus from the cervical stump, which is left below to close the vault.

7. As the last fibres of the cervix are severed or pulled apart, while the body of the uterus is being drawn up and rolled out in the opposite direction, the other uterine artery comes into view and is caught with artery forceps about an inch above the cervical stump.

8. Rolling the uterine body still further out, the right round ligament is clamped and cut off; and lastly, the ovarian vessels are clamped at the pelvic brim, and the removal of the whole mass, consisting of uterus, tubes and ovaries, is completed.

9. Ligatures are now applied in place of the forceps holding the uterine artery, round ligaments, and ovarian vessels; if the surgeon prefers, these may be tied, as they are exposed, without using forceps.

10. After the enucleation the operation is now finished in the usual way by closing the cervical tissue over the canal, and then by drawing the peritoneum of the anterior part of the pelvis (vesico-peritoneum and anterior layers of broad ligament) over the entire wound area, and attaching it to the posterior peritoneum by a continuous catgut suture.

Dr. J. G. Clarke, in the same publication, announces a novel method for the cure of cystitis—namely, the distension of the bladder by a rubber balloon, which is passed in thickly

covered with a 10 per cent. solution of ichthyol in gelatine. The bag is then inflated so as to cause gradual distension of the organ and to bring whatever medicinal substance used into direct contact with the smoothed out and stretched epithelium surface. A known quantity of air is passed into the bag and the appliance is left in place for from 15 to 20 minutes at a time, and can be employed every third day until the cure is complete. Dr. Clarke is careful that the method has its application alone in chronic forms of cystitis.

A series of very important experiments have been carried out in Zweifel's clinic in reference to the power possessed by the vagina of destroying pathogenic germs.

These experiments have cleared up much that was still left in doubt by the observations of Döderlein, Kaltenbach, and Ahlfield.

In every case observed the vagina contained micro-organisms only of a harmless character before experimentation, and the subsequent results were in no way affected by the fact that, in some instances, cocci, and, in others, bacilli, predominated.

The experiments go to show that all outside micro-organisms (streptococci, staphylococci, &c.) are destroyed at furthest within two days of their introduction to a healthy vagina.

Experiments were also conducted to ascertain whether antiseptic douching had the effect of facilitating the removal of outside germs, and the results strongly point to the harmfulness of these methods, especially when practised immediately before or after labour.

In those cases not interfered with streptococci placed in the canal died within two hours; but when scrubbing with lysol and other antiseptics was carried out these germs could be demonstrated, and were still active at the end of twenty-four hours.

These conclusions of Krönig closely coincide with those of Menge, who carried out similar observations on pregnant women.

The latter finds that even the gonococcus can live but a short time as a saprophyte in the vagina, and must either succeed in causing an inflammation of the underlying tissues or die.

The view propounded by Döderlein that the antiseptic properties of the vagina were, owing to its acid secretion, the result of germ action, is only partially true.

In many cases this antiseptic property was pronounced in vaginal secretions having an alkaline reaction, and was also present in the vaginæ of newly-born children.

Other important conclusions are, that the cervix does not harbour any variety of pus-forming germ, if we except the gonococcus, and that, therefore, spontaneous infection during childbirth is impossible.

Thure Brandt's Method for Curing Incontinence of Urine in Women.—Dr. Narick, who brought six cases before the Obstetrical Society of Paris (Nov., 1891; Nov., 1893; May, 1894), gives two more successful cases. In one case, aged forty, the trouble persisted after the reposition of an adherent retroverted uterus, and keeping it in position by a Schultze's pessary. The nights especially were much disturbed. Three applications cured the patient, and after six months she was still free of her troubles. The other case was an old woman, aged seventy, suffering from valvular disease, whom he found in a pestilential atmosphere, owing to her incontinence. Three massages cured her for a fortnight, when a violent cough from influenza caused a relapse. Three more sittings cured her again, and she was free when Dr. Narick saw her a month later.

The method is simple. The greased index finger is pushed up to the level of the vesical sphincter, or a little higher, and moved from right to left five or six times, at the same time pressing against the posterior surface of the pubis. The massage is slightly painful.

It seems to deserve a trial.—(*Annals of Gynæcology and Pædiatry.*)

The misfortunes which occur in connection with intra-uterine treatment, especially in out-patient practice, are to be attributed to deficiencies in technique, and still oftener in asepsis, rather than to the treatment itself. The agent which infects the uterus comes more often from the perinæum, the external genitals, and especially from the hairy pudenda, than from the vagina, and careful purification of these external parts is therefore indispensable in all such undertakings.

The use of the sound and curette for diagnostic purposes should be strictly limited; the information they give about the condition of the inner surface of the uterus, especially in tumours, is merely deceptive. Dilatation of the cervix by sterilised laminaria, iodoform gauze, or flexible copper sounds, followed by digital examination, should take their place.

Playfair's probe or some similar form of sound is not to be dispensed with as a means of applying treatment to the uterine cavity. The rod should be thin, and the cotton wool thinly and evenly wound about it, so that it may not come off and be left behind, or offer any unevenness to the inner os. The anterior lip is to be fixed with vulsella, by judicious traction on which considerable flexion can be pretty well remedied, and the operation is always made less painful and more certain. Passing a thicker sound, and allowing it to remain *in situ* for some minutes, is a valuable means of ensuring the medicated cotton wool afterwards reaching the cavum without being squeezed dry at the inner os, and in any actual stenosis of the inner os is an indispensable preliminary.

Nor would Gottschalk abolish the use of Braun's syringe, but warns us that in its use patience is a *sine quâ non*. The syringe should be emptied drop by drop without any noticeable pressure; it is impossible to be too deliberate or gentle in closing it, and anyone who neglects this rule must be prepared for uterine colic (or worse).

Uterine catarrh should in the first instance be treated as catarrh of the cervix only, unless from the nature of the discharge, hæmorrhage or tenderness, it is evident that the inflammation has affected the mucosa of the corpus.

No one should undertake intra-uterine treatment who is unpractised in bimanual examination, and may therefore overlook some local inflammatory condition in the neighbourhood of the womb which would contra-indicate such treatment. It is no wonder that failure and mischances result when cases are undertaken simply on the subjective statement of the patient without any exact diagnosis — without even an accurate palpation of the adnexa. In the acute stages of gonorrhœal endometritis no intra-uterine treatment should be attempted.—(*British Gynæcological Journal*, Nov., 1895.)

(To be continued.)

PART IV.

MEDICAL MISCELLANY.

Reports, Transactions, and Scientific Intelligence.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

President—JAMES LITTLE, M.D., F.R.C.P.I.

General Secretary—WILLIAM THOMSON, F.R.C.S.I.

SECTION OF OBSTETRICS.

President—LOMBE ATTHILL, M.D.

Sectional Secretary—DR. F. W. KIDD.

Friday, December 20, 1895.

The PRESIDENT in the Chair.

Specimens exhibited.

DR. ALFRED SMITH showed the following specimens:—

(1.) An abscess of the ovary with pyosalpinx, which he removed from a patient who suffered from a severe attack of puerperal fever, twelve months previously; ovarian abscess burst during removal; contents particularly fœtid. Peritoneal cavity was protected by thin gauze sponges; pelvis douched out with gallons of saline solution; drainage; rapid recovery.

(2.) A large multilocular ovarian tumour, with extremely extensive adhesions. The entire cyst-wall was intimately adherent all round, and in the lower zone coils of small intestines were embedded in its wall and could only be separated by dissection at the expense of the cyst taking care to remove the cellular layer. There was extensive hæmorrhage after separation of the adhesions from the abdominal wall, easily controlled by the purse-string suture; douched with saline solution; drainage; recovery.

DR. M'WEENEY said, in the examination of the case on which

he was asked to report, the most important points were the large size of the cyst, and the existence in it of a piece of the lower jaw with both condyloid and coronoid processes and a number of teeth, both incisors and molars. The teeth were in the wall of the cyst, and of the pieces of bone he found, one was as large as his little finger. The specimen, he thought, was strangely analogous to that presented by Dr. Tweedy.

Dr. Tweedy remarked that his case recovered.

Dr. M'Weeney said his case recovered too.

Dr. Macan said that, as regards Dr. Smith's second case, he desired to know whether the adhesions formed were consequent on pregnancy and delivery, or whether there was a history of some former inflammatory trouble. He did not know that even the size of the tumour was quite sufficient to explain the condition of things, unless there was twisting of the pedicle or some other affection. He would like to know why there were extensive adhesions in one case while they were absent in others.

Dr. Smith could not account for the adhesions. There might be, he thought, some connection between confinement and the presence of the adhesions; but the adhesions were very well organised considering that only three months had elapsed from the time of confinement. Why the adhesions were so extensive he could not say, and he would be glad to have Dr. Macan's explanation.

(3.) A pair of tubes and ovaries removed from a patient, aged twenty-eight, who had a multinodular fibro-myomatous uterus, and suffered from severe hæmorrhage. The outlet of the pelvis was very contracted and not favourable for morcellement.

Dr. Macan exhibited (1) a case of hysterectomy done for a large fibroid; (2) a vaginal polypus; and (3) uterine fibroid polypus.

Dr. Hastings Tweedy exhibited a dermoid tumour of right ovary, which he removed from a patient, aged forty-five years.

The woman had noticed the abdomen enlarging for only three months previous to operation, during which time she suffered intense pain. The cyst extended above the umbilicus for two inches. The patient made an afebrile recovery.

The tumour is an interesting one, not alone on account of its large size, but also from the fact that it contains much hair and a portion of the lower jaw, with many teeth embedded in it.

He also showed a cyst of the left ovary, which he had removed from a woman, aged twenty-five, who had had two children, the last seven weeks previous to operation. According to the patient's

statement, the tumour had increased enormously in size since the birth of her last child, and was accompanied by great pain.

Dense adhesions made the operation difficult, necessitating in one spot the leaving behind a piece of the tumour wall attached to the intestine.

The patient made a rapid and uneventful recovery.

He also showed a very large sub-mucous myoma, which had almost become a polypus, and was in a sloughing condition on its outer surface.

The patient had suffered for seven months from great pain and a fœtid discharge. The tumour completely occluded the vagina, and weighed over 2 lbs. In consequence of its great bulk, it was quite impossible to reach its base.

He removed the tumour piecemeal by means of Dr. W. Smyly's spoon forceps and stout scissors, without the exhibition of force, or any injury to the soft parts.

The patient made a rapid recovery.

An Interesting Solid Ovarian Tumour.

Dr. Alfred Smith read a paper on the above subject. [It will be found in Vol. CI., page 34.]

Ovariotomy.

The Hon. Sec., for Dr. Kinkead, read a paper on this subject. [It will be found in Vol. CI., page 97.]

Multilocular Ovarian Tumour.

Mr. Henry Gray Croly exhibited a large multilocular ovarian tumour which he removed from a girl, aged sixteen years, in the City of Dublin Hospital, on July 2nd, 1895. The tumour commenced to grow about nine months before her admission to hospital, and was first observed on the right side. The abdomen was very large, and numerous veins ramified over the tumour. The fluctuation was very distinct high in the abdomen; less so towards the pelvis, where solid masses were felt. Menstruation was irregular of late, and the "ovarian face" was very marked. The girl lost flesh considerably. The measurements were 38 inches in circumference at level of umbilicus, 30½ inches at ensiform cartilage, 8½ inches from umbilicus to right anterior superior spine, 8¾ inches from ensiform cartilage to left anterior superior spine. The usual incision was made, and Mr. Croly found it necessary to prolong the incision upwards and to the left of the umbilicus. A very large and distended vein in the broad ligament lay across the

upper part of the cyst. The vein was secured by double sterilised silk ligature, and divided between them. Two gallons of gelatinous, greenish fluid were drawn off from the large cyst which Mr. Croly then opened, when several more solid tumours were found, and are well seen in the specimen now on the table.

Mr. Croly found some difficulty in removing the tumour from the pelvis. This was caused by the locking of the smaller cysts in the pelvis. These cysts were opened with a scalpel and by finger, and a boiled starch substance escaped. The pedicle was tied in the usual way, and no drainage was adopted. There was no hæmorrhage. The girl was fed "per rectum" for several days, and made a rapid recovery and got fat. She returned to the country, and is in perfect health.

Misplaced and Rotated Spleen which simulated an Ovarian Tumour.

Mr. Henry Gray Croly exhibited a spleen, which he removed from a married woman (aged forty years) in the City of Dublin Hospital, on the 7th inst. The woman had several children; but never noticed any abnormal tumour until last summer. The swelling commenced at the left side, and gradually extended towards the right; was not painful. She lost flesh and her features changed. She thought at first she was pregnant. The doctor who attended her previously never observed any abdominal tumour until he was consulted after her last confinement. She aborted shortly after her admission to hospital. On palpation the tumour was firm, and gave the sensation of fluctuation, and, though apparently larger on the left side, crossed well over to the right, and could not be moved upwards or downwards. There was no history of ague, and the woman was never out of her native place. The usual vaginal and uterine examinations were made by the skilled gynæcologist to the hospital and the distinguished Master of the Rotunda Hospital.

When the patient was first admitted to hospital no decided opinion was expressed beyond that it was an "abdominal tumour," and no clinique was given, but the case was carefully palpated, and attention paid to improving the lowered condition of the patient's health. She was well fed, and allowed into fresh air, and walked as much as she felt inclined or equal to. After the final examination of the tumour by the gynæcologists, the unanimous opinion expressed was the belief of its being ovarian. The question of the difficulty of diagnosis of abdominal tumours of all sorts is well known, and this proved no exception, and, though doubts were at

first expressed on the case, all at the final examination *believed* the case to be ovarian.

Mr. Croly performed laparotomy, and came down on a large, solid, fleshy mass, with purpuric mottling on the surface. The small intestines were adherent to and fixed by the tumour, but were freed by the fingers. There was no hæmorrhage; as the mass was firmly fixed and could not be raised, the pedicle was sought for in the usual position but not found; the wound was then extended above and to left of the umbilicus, where a funis-like pedicle was discovered, feeling like a bar of iron. This was surrounded by omentum. The hand was now passed along the pedicle and the spleen space was empty. The pedicle was secured by a stout, double-silk ligature (sterilised). On section, the mouths of vessels were seen as in an "Esmarched limb." There was no blood lost; no vessel required ligation, torsion or clip. The peritoneal cavity and pouches were sponged. The abdomen was not closed until all risk of bleeding points was made certain. The patient bore the anæsthetic and operation, which was rapidly done, well, and went on most favourably for some days, when vomiting set in (of a greenish fluid), and symptoms of collapse, and she succumbed. No *post-mortem* examination was obtained.

The following discussion took place on the three papers:—

Dr. Tweedy—Dr. Smith, in his paper, said nothing about having examined the second ovary. Sarcomatous tumours occurred, as a rule, in both ovaries: here sarcoma occurred in only one. He was not quite clear that Dr. Smith's case was one of ordinary sarcoma. Referring to Mr. Croly's case, he said that unless the pedicle could be felt no certain—at least only an approximate—diagnosis could be made.

The President said, that Dr. Smith's paper put him in mind of a case that came under his care fifteen years ago. She had what he diagnosticated to be an ovarian tumour, with ascites. After opening the abdomen it became so wedged in the brim of the pelvis that he could not well get it out, and it was so soft that it broke down. One of his assistants had to force the tumour up from the vagina before he could remove it. It proved to be a sarcoma. She is now married, and her only cause of regret is that she has no children. He asked Mr. Knowsley Thornton his experience, and he was of opinion that, without exception, in every case in which the disease had occurred, the patient died within twelve months. His case was important, inasmuch as it proved that sarcoma of the ovary was not necessarily fatal, and that only one ovary may be affected. In the absence of malignant disease there must be some constitutional cause

of the ascites. When he (the President) was a student, some twenty years ago, Dr. Stokes laid it down as a law that if ascites was present the disease was most likely malignant, and he (the President) thought that law held good at the present day.

Dr. Glenn said that in differentiating between an ovarian and splenic tumours, the points to be relied on were—(1.) the presence of a notch; (2.) the consistency of the tumour; (3.) and its position.

Dr. Macan could not see why Dr. Smith did not make his diagnosis himself instead of handing the case over to his medical colleague. He thought another diagnosis might have been made, and that there was another cause for the ascites that was tubercle. He had opened an abdomen himself and found not a trace of fluid, where there was no doubt that the disease was carcinomatous. He congratulated Dr. Smith on his paper. He could not gather the evidence on which it was stated that the spleen was likely to suppurate in Mr. Croly's case. His diagnosis of the case was that the woman had been going about with a twisted spleen for many months, and that enlargement was due to the twist.

Dr. Lane, speaking of the tumour, said Mr. Croly referred to pregnancy. He asked the patient was she pregnant and she said no. He was under the impression that it was a fibro-cystic tumour. On examination, per vaginam, he found the cervix softer and more congested than is the case in pregnancy. The uterus was also more increased in size than it would be in pregnancy. To his mind it had a very elastic and fluctuating feel. When the abdomen was opened the tumour had gone up to the diaphragm, and it seemed that the pedicle was going down into the pelvis, and that it was not going upwards towards the left side.

Mr. M'Ardle congratulated Dr. Smith. He mentioned three cases of sudden hæmorrhage. One was from a friable pedicle. In all three cases referred to the rapidity with which the pulse returned was well-marked after injection of saline solution. At the time they were securing the bleeding points the patient was blanched, and large beads of perspiration stood in the forehead. The shock that was often spoken of in connection with these operations meant often that inflammation had spread along the pelvic veins. He was acquainted with two cases where death was attributed to shock; but the fact was, in each case, a cast of the inferior vena cava was found in the right side of the heart. He believed the use of the clamp forceps set up phlebitis, and was a cause of the high mortality in those operations. He pointed out the advantage of digital pressure practised in a manner shown. In the diagnosis of abdominal tumours he laid stress on elevating

the patient in the Trendelenberg position. Unless the tumour was adherent to the rectum it would move upwards towards the diaphragm. He thought thrombosis of the splenic vein accounted for the hard cord.

Dr. Winifred Dickson mentioned a case in which there was ascites, yet the case was an ordinary cyst. Dr. Dickson mentioned the fact, as a good deal had been said as regards ascites accompanying malignancy.

Dr. Horne said, when they were examining the case, they were struck by the amount of ascites present. With regard to the bleeding occurring 36 hours after the operation, they should remember that Dr. Smith pointed out that the pedicle was very broad—it measured 5 inches in breadth. He connected the bleeding with the vomiting. He also made some remarks on the histological character of the tumour.

Dr. Smith, in reply to the remarks made on his paper, said he could give no explanation of the ascites. The fact that Dr. Atthill's case is still living gave him hope. He did not clearly understand what Dr. Atthill meant by saying the cause of the ascites in his (Dr. Smith's) case was constitutional. He commented on Dr. Macan's view as to the tubercular nature of the disease.

Mr. Croly replied to the observations of Dr. Macan and other members. He could not agree with Mr. M'Ardle as to the value of turning the patient upside down, seeing that the tumour was adherent in all directions.

The Section then adjourned.

Friday, January 31, 1896.

The President in the Chair.

Ovarian Tumour.

Dr. Alfred Smith showed an unilocular ovarian tumour, the size of an adult head, which he removed from a child aged thirteen years. Recovery rapid.

Dr. Lane wished to know if the patient had menstruated.

Dr. Smith replied that she had not.

Exhibit.

Sir Thornley Stoker exhibited the uterus with a number of attached tumours which he had removed from a patient thirty-five years of age. The growths were fibro-myomata, all apparently of interstitial origin, although five or six of them in the process of

development had become sub-peritoneal and pedunculated. The substance of the uterine wall was the seat of a number of tumours, varying in size from a pea to an orange, and the pedunculated growths were from the size of a goose egg to one so large that it weighed 15 lbs. The entire weight of the parts removed, when drained of blood, was 19 lbs. 10 oz., and must, when full of blood, have been about 24 lbs. The circumference of the large pedunculated fibro-myoma was 34 in., one direction, and 31¼ the other. The growth had existed for six years, and had become so bulky as to render life intolerable. The operation performed was a supra-vaginal, intra-peritoneal, hysterectomy. The sutures securing the intra-ligamentous structures were, like the cervix, rendered sub-peritoneal by careful suturing of the peritoneum from the brim of the pelvis on one side to the other. The operation was an exceeding protracted one, owing to the difficulty of securing the stump of the right broad ligament, which was invaded by a cyst in such a way as to necessitate its division close to the pelvic wall. The operation lasted 2½ hours, and the most remarkable fact elicited by it was that in spite of the age and enormous size of the tumours there were absolutely no adhesions. The condition of the patient from the time of operation to the date of meeting, 10 days, was perfectly satisfactory. She had not even suffered inconvenience, and was practically out of danger.

The PRESIDENT said that the rapid growth in this case would be likely to lead him to think that the tumour was of a sarcomatous nature. While connected with the Rotunda, a case presenting some points in common with Sir T. Stoker's case had come under his notice. Mr. Knowsley Thornton at the time was over in Dublin, and, having seen the case, expressed the opinion that he would not care to touch it. He congratulated Sir T. Stoker on an operation calculated to uphold the reputation of Dublin as a school of surgery.

Case of so-called Elephantiasis.

DR. F. W. KIDD read notes on a case of so-called elephantiasis.

The patient, aged thirty-three, had been sent to him from the country—had never been abroad, nor is there any suspicion of a syphilitic origin—states that about 13 years ago she got a fall, to which she attributed the growth of the tumour. The tumour commenced in and involved all the tissues of the right labium, and hung down more than half way to her knees. It did not grow quickly at first, but increased more rapidly for the last eighteen months. Patient had never sought for any advice, and only now came because the growth had assumed such proportions that it

was impossible for her to sit down with any comfort. There were no disorders of menstruation or micturition. The operation for the removal of this growth was done on the 7th December, 1895. An elliptical incision having been made, the diseased tissues were dissected out from the anterior surface of the symphysis, where they were very adherent; bleeding points were ligatured or twisted, the site of the clitoris giving most trouble. A drainage tube having been inserted the length of the wound, it was closed with numerous silk-worm gut sutures. The wound did not heal by first intention—a result probably due to the low vitality of the part and its œdematous condition. The tissues became very œdematous, and at one time had an erysipelatous-looking blush. Some suppuration took place, and it was only by the most absolute care that septic trouble was avoided. There must have been many lymphatics in a condition likely to absorb septic matter. The temperature never went above 101·2°. She made a good recovery, though somewhat slow.

When removed, and in the recent condition, the tumour weighed 5½ lbs. The following was the report made by Dr. McWeeney:—"The tumour is whitish in colour, covered close to the pedicle with rather dark-coloured skin, from which grew a few long hairs, whilst elsewhere it is covered with epithelium which has the character of mucous membrane. It is lobulated and very irregular in shape, with numerous papilla-like excrescences, so as to resemble a gigantic wart; the consistency is rather soft. Between the larger lobes are curious sinuous cavities, some of which are actual passages or canals running right through the mass from near the pedicle at one end to the free convexity on the other. Part of the skin covering the base of the tumour is covered with innumerable small pedunculated protuberances like fungiform papillæ. Microscopically, the tumour consists of a somewhat œdematous fibrous tissue of loose texture containing so many lymph clefts that in places one might almost term it a lymphangioma. There are also very numerous newly-formed blood-vessels. Around the lymph clefts are many collections of lymphoid and epithelioid cells. Sections of the papilla-like protuberances show essentially the same appearances. The surface is covered with stratified epithelium, which, from its slightly-developed horny layer and absence of hair follicles, may be said to constitute a mucous membrane. I should be inclined to class this specimen provisionally as molluscum fibrosum. Dr. Kidd exhibited two excellent photographs of the tumour *in situ* before removal, which were kindly taken by Dr. J. Alfred Scott. The points of interest in the case were—the comparative rarity of

this form of growth; the presence of these cavities or sinuses permeating it; the size it had attained before relief was sought; the absence of serious trouble, both from hæmorrhage during the operation and from septic absorption when portion of the wound suppurated; the question as to whether the growth would be one likely to recur if any portion of it were left behind.

The PRESIDENT had only met with one case analogous to Dr. Kidd's, and that was in his private practice many years ago. The excessive growth of tissue, however, had not reached one-third of the dimensions seen in Dr. Kidd's case, still the disease caused great distress. There was marked pruritus. One of the labia was enormously enlarged. The tumour sprang from one side; the other side being healthy.

DR. JELLETT had the opportunity of observing a case in many respects similar to Dr. Kidd's. One labium was three times the size of the opposite labium. The skin was hypertrophied and pigmented, and over its surface a few hairs were to be seen scattered here and there. On section of the tumour he found traversing bands, white in colour and homogeneous in appearance. They were not unlike cartilage. He had some reason to think that the capsule of the tumour consisted of perineurium.

DR. KIDD said that it was usual to refer cases like his to repeated attacks of an erysipelatous character, or to obstruction of the lymphatic channels. He could not trace a pathological connection in the present case between the tumour and the nerves. He could not agree with Dr. Jellett that the tumour originated in nervous tissue.

Eclampsia.

DR. HASTINGS TWEEDY read a paper on this subject. [It will be found in Vol. CI., page 206.]

DR. HORNE said, notwithstanding Dr. Tweedy's contribution, he was still of the opinion that as regards the pathology of the disease they were as much in the dark as hitherto. In attributing the disease to toxins, they were, he believed, begging the question, for the presence of those toxins had not been demonstrated. As regards blood-letting, he could not understand how it was a treatment applicable to all cases—for instance, to one patient who was plethoric, and to another who was anæmic. He spoke favourably of the treatment of eclampsia by $\frac{1}{2}$-gr. doses of morphin, or corresponding doses of opium. He also expressed himself in favour of croton oil—a drop being placed on the back of the tongue. He had experience of pilocarpin in one case, and, although in that case he himself did not administer the drug, under its influence

the woman rapidly developed œdema of the larynx. He did not assent to Dr. Tweedy's theory as to the elimination of ptomaïns by blood-letting.

The PRESIDENT said that the danger of the convulsions is infinitely greater when they occur in the early stages than when they occur in the later stages of labour. He had induced premature labour successfully in two or three cases. Under certain conditions he would be prepared to adopt the same line of treatment again. However, he regarded such a procedure as a very serious one.

DR. ALFRED SMITH pointed out the fact that some German investigators were inclined to believe that acetones in the blood was the cause of eclampsia. The recognised treatment of eclampsia was by large doses of morphin. He followed the practice that obtained at the Rotunda, when he was Assistant Master to that institution—chloroform, purgation, bromide of potassium, &c.—in two cases, which had occurred in his private practice, and with satisfactory results. They should take their instruction from the large institutions, and when the statistics of such institutions demonstrated the value of opium, the opium line of treatment would be adopted. He would be satisfied with the treatment adopted by Dr. Macan until some better method was discovered.

DR. SMYLY observed that the difference of opinion on the question of the treatment of eclampsia arose chiefly from the habit of forming conclusions on the experience gained of one or two or a dozen cases. No matter what the treatment they had recourse to, sometimes they would get a run of successful cases, and sometimes the reverse. To his mind the question of inducing premature labour or not, was by no means a practical one; for the induction of labour occupies considerable time, and causes great reflex action. He believed chloroform increased the tendency to death. If the patient's death was inevitable, he did not think it was a matter of great consequence whether she died in convulsions or not.

DR. MCWEENEY did not think there was anything special about the eclamptic kidney or anything special about the toxæmic condition of the urine. He held with Bouchard that eclampsia was an auto-intoxication. He had not, when examining for Dr. Horne a specimen of eclamptic urine, the means of demonstrating toxins, otherwise than by experiments on animals. He said that in eclamptic urine albumen in a greater or lesser degree was always present. A microscopic examination of that fluid invariably revealed hyaline tube casts. Bouchard proved that toxins could be eliminated by acting on the bowels; but the question of the

administration of purgatives should be determined by the condition of the patient; and mentioned that small vessels had been found plugged with a tissue, structurally identical with the chorion.

Dr. Lane dwelt on the necessity for prophylactic treatment—dietetic treatment. He thought morphin inferior to pure opium. Dr. Lane made a passing reference to serum treatment.

Dr. Parsons could not consider the treatment by chloroform a rational method, since it was well known that that drug depresses the higher cortical centres. By giving opium they were likewise introducing into the system a substance which exercises a depressing effect on the heart. Opium, however, was a less dangerous drug than chloroform. He failed to understand the advantage to be derived from sweating the patient, in face of the fact that Dr. Purser had assured him that there was more urea in one drop of urine than in as much sweat as would cover the body from head to foot. He regarded pilocarpin as simply a poison in this disease, since it paralyses the sensorium, already too depressed.

Dr. Macan ridiculed the theory that attributed eclampsia to plugging of small cerebral vessels.

Dr. Tweedy said that success in the treatment of eclampsia largely depended on attention to details. He mentioned many of those details—as, for instance, turning the patient on her side during administration of chloroform.

The Section then adjourned.

SECTION OF SURGERY.

President—Sir Thornley Stoker, President of the Royal College of Surgeons in Ireland.

Sectional Secretary—Kendal Franks, F.R.C.S.I.

Friday, January 10, 1896.

The President in the Chair.

Complete Excision of the Larynx, with subsequent Powers of Vocalisation.

Mr. R. H. Woods showed a man whose entire larynx had been excised in 1892 by Dr. Solis Cohen, of Philadelphia. The trachea opened externally in the middle line of the neck in front, and there was no communication whatever between the mouth and the respiratory organs. The man was, however, able to vocalise. Mr. Woods believed this was accomplished by gulping air into the

œsophagus, and that this air was forced up again by pressure from below. The sound was made by muscular fibres or bands in the œsophagus, which had gradually been trained to perform this function. The case elicited a great deal of interest.

Report of a Case of Operation for Pulsating Tumour of the Temporal Region, of Twenty Years' Standing.

Prof. C. Yelverton Pearson (Cork) showed a photograph and read the report of a case of pulsating tumour of the left temporal region, on which he had successfully operated in October, 1894. The tumour occupied the entire temporal fossa, and was bound down by the temporal fascia. With the exception of a few fibres, the temporal muscle had disappeared. In structure it consisted of a convoluted mass of dilated and tortuous thin-walled bloodvessels, which were so fragile that they would bear neither ligature nor compression with forceps. The entire mass, owing to the great severity of the hæmorrhage, was cut away with the Paquelin's cautery-knife, which had also to be inserted into a fissure in the coronal suture, through which large vessels of communication passed. The tumour, which probably originated from a head-injury, had been nearly twenty years in existence, and the operation was undertaken at the earnest solicitation of the patient owing to the increasing severity of the symptoms, which consisted of intense pain either on stooping or throwing the head back, insomnia, dizziness, throbbing sensations, and inability for occupation. The aneurysm was supplied chiefly by the middle, meningeal, and deep temporal arteries. The patient is now in excellent health, has no pain or other disagreeable sensation, and sleeps well.

The President thought that it was not possible to form a diagnosis with any great degree of certainty. He mentioned the case of a girl, aged seventeen, with a pulsating tumour at the junction of middle and lower third of thigh. The tumour had a connection with the bone. There was tremendous hæmorrhage, to check which pressure on the femoral trunk above the tumour was ineffectual. The tumour was supplied from bloodvessels in the bone. He thought amputation at the hip-joint was the right proceeding in such a case.

Dr. Bennett congratulated Prof. Pearson on his paper. He would like to know from Prof. Pearson whether (1) there was any *bruit* heard previous to operation; (2) whether pressure on the carotid was carried out with a view to stopping the bleeding. Pressure on the common carotid could be kept up so completely under anæsthesia that it would control the hæmorrhage, at least for a

time. Pressure in Sir. T. Stoker's case would be of no use, but things were different in tumours of this kind occurring in the head.

Mr. Kendal Franks congratulated Prof. Pearson on his extremely interesting case. He asked what was the condition of the bone. From what he could gather there was a fissure in the bone, through which fissure a circoid aneurysm existing within the skull was continuous with a similar aneurysm outside it.

Mr. Thomson thought that one of the most interesting features of this most interesting case was its subsequent history, as detailed by Prof. Pearson. He took it, of course, that what was removed was only part of the tumour, for, from what he could gather, he believed there was a tumour within the skull, perhaps not so large, but of the same character as that which appeared outside. Now, when Prof. Pearson removed the outer portion of the tumour, what became of the inside portion if it was of the same character? What happened in Prof. Pearson's case probably was, the sealing up of the vessels on the outside had the effect of what was called distal ligature. Prof. Pearson's difficulty with the hæmorrhage was in the fact that the tumour was fed by vessels inside the skull. He knew the difficulty of getting ligatures to hold in those cases, but he was not sure that the application of the cautery would be a reliable method in the next case.

Prof. Pearson, in reply, expressed his thanks to the Academy for the kind manner in which his paper was received. In reply to Prof. Bennett, he said there was no *bruit* present. Compression of the common carotid was resorted to to check the hæmorrhage. He regarded the case not as one of pulsating tumour of bone, but as a case of aneurysm by anastomosis. He regarded the intra-cranial aspect of the case as very serious. He believed, with Dr. Thomson, that there was a free communication between the aneurysm inside and that outside the skull. He mentioned that, in his case, the bones were sound, though much thinned. The arteries coming through the squamous portion of the temporal bone were much dilated.

Tubercular Disease of the Hip-joint.

Mr. Swan read a paper on this subject. He reviewed the pathology of the affection, and quoted statistics from the Orthopædic Hospital to show the comparative frequency of hip-joint disease in hospital beds, as opposed to spinal affections, which, although positively more numerous, are capable of being treated more easily in their own homes. This he accounted for by the greater fre-

quency of suppuration and its consequences, in hip cases. He reviewed the various deformities incidental to the disease and their mechanics. He deprecated the procedure of removing a tubercular deposit in the trochanter or neck of the femur, as a routine, for a variety of reasons—the difficulty of accurate diagnosis, the danger of sepsis, and the retrogressive changes tending towards cure, being a few. He showed an ingenious arrangement for easily adapting a stirrup in extension, and went at some length into the application of that remedy.

The PRESIDENT said that if ever there was a paper calculated to elicit discussion it was this. The paper was one of great ability and the result of great practical experience. One of the most interesting matters put forward by Mr. Swan was his dissertation on the existence of tubercle in parts other than where it exhibited itself. That was a question on which they now felt certain. There was another matter on which he entertained a growing opinion, and that is that in the great majority of cases of tubercular spine disease the bones are the centres of the affection. The disease of one joint—the knee—confirms him in this opinion. Many cases, known clinically as tubercular synovitis, in reality belonged to the osteal class; and abscesses regarded as of the soft parts were old tubercular abscesses, originating in bone.

PROF. C. Y. PEARSON supported the statement of the President, that most of the cases regarded as tubercular disease of the synovial membrane have really their origin in the bone.

MR. KENDAL FRANKS thought that the bone was generally the starting point of tubercular mischief. He had for years given up the operation of arthrectomy. In cases of knee-joint disease, where the ends of the bones looked healthy and the disease seemed limited to the soft tissues, section of the bone generally showed an abscess in the condyle of the femur or head of the tibia.

MR. THOMSON was very strongly of opinion that in the vast majority of tubercular diseases of joints, the cause was due to injury. But in many cases the injury was so slight that it was not complained of until damage had been done to the bone. The vast majority of these tubercular joints they saw occurring in children; and they were not accustomed to deal with morbus coxæ after the growing age was passed. He thought it was not a matter of very great importance whether the disease began in the bone or synovial membrane; for, wherever it began, both bone and synovial membrane were engaged at the time they saw the disease. Personally, he believed the disease began in the bone and spread to the synovial membrane. He was strongly opposed to erasion.

He never did an erasion, and so far as he knew he would never perform the operation, because it was theoretically bad, and its results were such as did not encourage one to give it a trial.

Mr. Chance congratulated Mr. Swan on his paper. The only point on which he differed from him was in regard to his treatment by adduction. He thought Mr. Swan's method of extension an excellent one, but inferior to extension by a wire splint he described.

The President said he had been looking for a case suitable for erasion, and had not found one. An erasion had been done in a case elsewhere, seven years ago, and supposed to be cured. The operation of excision had become necessary and showed that the bones were full of tubercular centres.

Mr. Swan thanked the meeting for the manner in which they had received his paper. The speakers, he said, were unanimous in their condemnation of arthrectomy. He, too, condemned it.

The Section then adjourned.

SECTION OF MEDICINE.

President—T. W. Grimshaw, M.D., President of the Royal College of Physicians of Ireland.

Sectional Secretary—A. N. Montgomery, M.R.C.P.I.

Friday, January 17, 1896.

The President in the Chair.

An Enteric Rash.

Dr. J. M. Day read a paper on a case of enteric fever in which a peculiar rash, resembling that of typhus fever, was present.

Dr. J. W. Moore said the case showed the necessity for a fever wing being attached to every hospital, as the patient in the first instance was admitted to a general ward in the Meath Hospital. When he first saw the case, he had no hesitation in pronouncing it one of typhus fever, but that it was not so, but enteric fever, the temperature chart now shown proved absolutely. He never saw a case more like typhus in the early stage. The case could not be left in the general ward, and had to be sent to Cork-street Fever Hospital. With regard to the case, he thought from the number of the spots, their unusually dark colour, and their irregular size, that they were those of typhus fever rather than an enteric rash.

Dr. Pollock said he had seen several cases in which there was the rose-coloured rash all over the body, together with all the other

symptoms of typhoid, yet they were cases of typhus. The brain became rapidly involved, and all the cerebral symptoms manifested themselves.

The PRESIDENT gave some details of a case, apparently of typhus fever, but a fatal result produced by perforation proved that the case was one of typhoid. The late Dr. Kennedy believed there were some cases of mixed typhoid and typhus fever. The President mentioned a number of cases that occurred in Bishop-street, in which both rashes co-existed simultaneously in the same patient. He said that enteric fever was not so fatal 25 years ago as it is at present. He had never lost a typhoid patient in Cork-street Hospital, but this he did not attribute to his superior skill, but to the mild form the disease assumed at the time he was connected with that Institution; on the other hand, cases of typhus fever were then far more numerous.

DR. DAY briefly replied.

Fatal Case of Chorea.

DR. JAMES LITTLE related the particulars of a case of chorea which proved fatal. The patient was a young woman, aged about twenty years.

DR. ALFRED SCOTT found at the *post-mortem* examination some very small vegetations on the mitral valve; otherwise the heart and viscera were normal. The brain was removed and sections from various parts examined. In the large ganglionic cells in the motor area of the cortex, a yellowish degenerated patch could be seen, which was blackened by osmic acid. Dr. Scott thought that this degeneration was probably caused by fatigue, resulting from the excessive choreic movements and not the cause of the disease.

DR. POLLOCK mentioned the case of a young woman, aged eighteen, attacked by chorea. This case recovered. The spasms were very marked. Bromide of potassium, 20 grs. twice daily, and 30 grs. at bed-time, gave some hours' rest, but the moment the drug was discontinued the spasms returned as bad as ever. He administered arsenic in minute quantities. There was endocarditis and a murmur. Joints were also affected.

DR. DAWSON said he would like to ask Dr. Scott at what stage in the hardening process he made the section. He considered the degeneration like that which commonly accompanied insanity. He believed it was due to over-action of the cells. He would like to know the nature of the staining substance used?

DR. BOYD wanted to know if an examination of any other portion of the nervous system, except the cortex, was made;

whether the ganglia at the base of the spinal cord were examined; and whether attention was paid to the condition of the capillaries.

Dr. Cox gave the details of a case of chorea. It was a child. The faculty of speech was lost completely; temperature high—104°; great wasting of muscles of both arms and body; unable to support head; food administered with great difficulty. Things looked as if the case would terminate fatally. He tried bromide of potassium, but found it of little use. What had a decidedly good effect was Easton's syrup with arsenic. The strychnin he gave, after some hesitation, in the hope of stimulating the respiratory centre, for he was alarmed lest the respiration would stop at any moment. She recovered. He believed that the spinal cord played as important a part as the brain in the production of chorea.

Dr. Pollock said he had given strychnin in chorea, but never found it of use.

Dr. Knott gave the details of a case, and pointed out what he considered the important circumstance about it was that the rheumatic symptoms followed the choreic symptoms.

Dr. Harley stated the details of some cases of chorea in a children's school that came under his notice.

Dr. Parsons said chorea in persons over twenty years of age is a rare affection. The absence of pregnancy in Dr. Little's case added to its interest. He thought the vast majority of cases would recover if left alone. Only three per cent. of ordinary cases die, whereas when the disease occurs in people over twenty, according to Dr. Gowers, who had collected a large number of cases, the mortality was 20 per cent. Death, he (Dr. Parsons) thought, was due to exhaustion. He did not believe in the embolic theory. The injection of minute particles was a recognised fact; but it was difficult to see why they should select one carotid and go to one side of the brain.

Dr. Craig gave the details of cases to show that chorea was often due to fright. In Dr. Cox's case he believed it was the arsenic did good; 5–10 minims of liq. arsenicalis thrice daily might be given to children.

Dr. Doyle dwelt on the presence of uric acid in the blood as a possible cause of chorea.

Dr. Bewley said that by gradually increasing the doses arsenic might be given with no harm, but with much good. As regards the pathology, he said they knew nothing at all about it, nor were they likely to do so. They were completely ignorant of changes that took place in the cells of the brain; yet something did take

place to account for the impulse that travelled down to the muscles when thrown into action. The cells of the cortex appeared to him to be the seat of these changes.

Dr. S. M. THOMPSON advocated the use of chloral hydrate.

DR. LITTLE, in reply, said, to answer the last speaker, first he might say that the first drug employed in his case was chloral hydrate, but without any good effects. After its failure he tried other remedies. Of course they all knew that the majority of cases that come into hospital suffering from chorea will get well without treatment, with treatment, or even in spite of treatment. Other cases there are that will tax the resources of the physician, and sometimes we come face to face with people with whom relief of symptoms for even a short time can be given, and thereby, as Dr. Thompson said, turn the balance between life and death. He mentioned a case, the child of a friend of his, that came under his care 18 years ago, and in her case nothing did so well as bromide of sodium at night and arsenic thrice daily. He believed that small doses of strychnin might do good in some cases of chorea. In answer to Dr. Boyd, he said the embolic theory was not originated by Dr. Hughlings Jackson. He believed the embolic theory was now almost universally abandoned.

DR. SCOTT, in reply to Dr. Boyd, said he had not examined the basic ganglia. He found no change in the capillary vessels, nor any changes in the medulla. In reply to Dr. Dawson, he said that at the time of section the brain was half hardened. He used blue-black, and also another form of blue stain.

The Section then adjourned.

SECTION OF ANATOMY AND PHYSIOLOGY.

President—JOHNSON SYMINGTON, M.D.

Sectional Secretary—A. BIRMINGHAM, M.D.

Friday, January 24, 1896.

The PRESIDENT in the Chair.

The PRESIDENT said that before commencing the business of the evening he desired to express his appreciation of the honour done him by electing him President of the Anatomical and Physiological Section of the Academy of Medicine. And this honour, he thought, was enhanced by the fact that he did not reside in Dublin. When asked to fill the post of President he did so with some reluctance,

because, among other things, geographical difficulties would prevent him from devoting proper attention to the work of the Section. He dwelt on the great advantage of combining Anatomy and Physiology in one Section. And the fact that Prof. Purser was about to read the first paper, was a proof that physiology was not neglected by the Academy. Again he expressed his sense of the honour done him and the institution with which he was connected; and he then declared the business of the meeting opened.

Exhibits.

The PRESIDENT exhibited a pulmonary artery with four valves. The four flaps were well-developed, and of nearly equal size; two of them were somewhat more closely connected together than the others. The President remarked that a valve of three flaps was probably more efficient than one with four, for, in the former case, a flap was always placed opposite the interval between the other two, so that more perfect closure was thus secured; while with four flaps the interval between any two was in the line of the interval between the remaining two, this, he thought, would not produce such a perfect valve.

DR. WOODS dwelt on the position of the cleft between the valves; he did not, however, think that this was a sufficient reason for the presence of three valves instead of a greater or lesser number. He spoke of the connection between the number of valves, and their power of sustaining a column of blood. He said if there were six valves, their attachment would have to be so close that there would be a danger of their flapping back into the heart and allowing blood to regurgitate.

DR. BIRMINGHAM was of opinion that the President's view was the correct one. Three flaps ensured more perfect closure. He thought a valve of four or six flaps would be quite as capable of sustaining the column of blood as one of three, for it should be remembered that the attachment of the flaps was not along a horizontal line around the orifice, and that they did not lie in a horizontal plane, but really formed, with the walls of the artery, a series of pockets which bulged out, when distended, and met in the lumen of the tube.

MR. FRAZER thought the discussion was going beyond its proper limits, when they argued as to the relative merits of three and four valves. He wished to know could the presence of a fixed number of flaps be explained on developmental grounds.

The PRESIDENT exhibited, for Professor Cunningham (who was unavoidably absent), three puppies of the Cape hunting dog (*Lycaon*

Pictus), which were born in the Dublin Zoological Gardens. Unfortunately the puppies, which are very rare and valuable, only survived their birth a few days. Some of the peculiarities of the animal were pointed out, and the interesting fact that the period of gestation was considerably longer than in the common dog, was mentioned.

Stimulation of the Pneumogastric Nerve.

Prof. Purser made a communication on the stoppage of respiration, which sometimes follows stimulation of the peripheral end of the pneumogastric nerve, and pointed out that this event may explain certain cases of sudden death, which are often attributed to primary stoppage of the heart: as in death resulting from a blow on the abdomen, or death from inhalation of chloroform.

Mr. Frazer said he was the first person who administered chloroform in Dublin, and he never had a fatal case. He attributed his success to watching the respiration. He did not believe a right explanation had been given of the cause of death in fatal cases. The symptoms in those fatal cases mentioned were undoubtedly respiratory, not cardiac. He made it a point in the administration of chloroform to watch the respiration, and when the breathing became embarrassed, to stop the inhalation.

Dr. Parsons gave the history of three cases which he said pointed to the conclusion that death from inhalation of chloroform was to be attributed to cessation of respiration rather than to stoppage of the heart's action. The heart, he said, may beat for a few minutes after the respiratory functions had ceased. He would like to know Professor Purser's opinion as to the effect of nitrite of amyl.

Dr. D. J. Coffey, in discussing Professor Purser's paper, suggested that the fact that the inhibition of the heart, brought about by peripheral stimulation of the vagus, is not permanent, does not warrant the conclusion that a permanent inhibition cannot be determined by reflex excitation. In the latter case, powerful impulses roused in afferent nerves fall on the cardio-inhibitory centre, and the conditions are very different from those in peripheral excitation.

Prof. Birmingham asked if the author had in any of his experiments on animals, or in other cases, seen death due primarily to stoppage of the heart while respiration was unaffected?

Prof. Purser, in replying, said it would be a dangerous condition of things if reflex impulses travelling along the pneumogastric could cause death by inhibition of the heart. He agreed with Dr.

Coffey that a message sent down the vagi, from a reflex centre in the brain, might produce results very different from excitation of the peripheral portion of the cut nerve. He had never seen a human being die of chloroform. In a series of experiments on animals, where death took place from chloroform, he never found the heart stop before the respirations. He could not give Dr. Parsons any information on the subject of nitrite of amyl; he had never experimented on animals with the drug; he had, however, prescribed it in practice with satisfactory results. In reply to Dr. Birmingham, he said he had never seen such a case.

The Homology of the Dumb-bell-shaped bone in the Ornithorhynchus.

Prof. Symington described the form and relations of the dumb-bell-shaped bone in the ornithorhynchus, based upon the microscopic examination of serial sections of the beak of this animal. He discussed the theories as to its homology, and considered that it corresponded to the mesial palatine process of the premaxilla of ordinary mammals. If, therefore, the dumb-bell bone be a true "anterior vomer," this element is also represented in the majority of other animals by a process of the premaxilla. Various objections were brought forward against the vomerine theory, and it was held that on the whole the evidence was in favour of associating it with the premaxilla rather than with the vomer.

Prof. Birmingham said that the subject of the President's paper was one which was exciting considerable discussion at present. Few of them had an opportunity of investigating the question at first hand, and they were much indebted to the author for giving them this opportunity of examining his beautiful specimens.

The Topographical Anatomy of the Pancreas, Duodenum, Spleen, and Kidneys.

Prof. Birmingham made a communication on the topographical anatomy of some of the abdominal viscera, which he illustrated by a plaster cast. The cast was prepared from a body in which the viscera had been previously hardened *in situ*, by the injection of a solution of chromic acid. The cast gave a very clear idea of the condition of the pancreas, spleen, duodenum, kidneys and supra-renals; it also showed particularly well what the exhibitor called the "stomach bed." The author remarked that in probably the majority of cases the stomach assumed, when empty, an attenuated pear shape, and rarely if ever became flattened, as often represented. The greater part of the stomach in this condition lay nearly horizontally with its long axis from behind forward, the narrow

end bending to the right. He believed that during distension the enlargement was more in a direction forwards and to the right than downwards. The duodenum did not lie in a coronal place as usually represented, on the contrary it is strongly flexed (moulded) round the right side of the vertebral column. He also pointed out that the descending duodenum lies not in front of the inferior cava, but to its outer side. The cast gave a very striking demonstration of the shape and position of the pancreas. The inferior surface is of much greater extent than is represented in His's models. This, the author considered to be the usual condition. The surfaces and angles of the spleen, as lately described by Professor Cunningham, are very distinctly shown. Many other points of interest are illustrated by the cast.

The PRESIDENT said they had reason to feel obliged to Prof. Birmingham for the great trouble he had taken in the preparation of his cast. He had spent, he said, some time in considering the positions and relations of the abdominal organs, and to acquire accurate knowledge in this respect was a matter of great difficulty. On these questions there could be no doubt but that the opinions of the older anatomists are extremely fallacious. He felt bound to protest against many statements in reference to the relations of the abdominal viscera, contained in text books. It was the duty of anatomists, so far as lay in their power, to supply physicians with accurate descriptions of those viscera. He agreed with the author that when empty, a greater part of the stomach was horizontal in position. As regards closure of the pylorus, it was not effected by contraction of the pylorus alone, but by contraction taking place about an inch on the cardiac side. He believed there was a good deal of work to be done in regard to the pathology of the abdominal organs, for instance, in tracing the effect of enlargement of one organ upon neighbouring organs. He pointed out that an enlarged liver may not push down the right kidney, the hepatic enlargement passing down in front of the latter organ. He believed the frozen section method employed by many anatomists was a source of mistakes. He expressed a high opinion of formalin as a hardening agent.

The Section then adjourned.

SANITARY AND METEOROLOGICAL NOTES.

Compiled by J. W. Moore, B.A., M.D., Univ. Dubl.;
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Vital Statistics

For four Weeks ending Saturday, May 16, 1896.

The deaths registered in each of the four weeks in the sixteen principal Town Districts of Ireland, alphabetically arranged, corresponded to the following annual rates per 1,000:—

Towns	Weeks ending				Towns	Weeks ending			
	April 25.	May 2.	May 9.	May 16.		April 25.	May 2.	May 9.	May 16.
Armagh -	7·0	0·0	14·0	14·0	Limerick -	29·5	23·9	12·6	11·2
Belfast -	31·0	25·6	26·3	27·1	Lisburn -	25·7	34·1	25·7	17·0
Cork -	18·7	19·4	18·0	16·6	Londonderry	23·6	26·7	25·1	36·1
Drogheda -	35·1	4·4	17·6	4·4	Lurgan -	4·6	31·9	18·2	31·9
Dublin -	22·7	22·7	21·0	22·1	Newry -	28·2	20·1	12·1	20·1
Dundalk -	20·9	12·6	8·4	20·9	Sligo -	10·2	25·4	40·6	0·0
Galway -	3·8	18·9	26·4	3·8	Waterford -	45·0	27·5	12·5	22·5
Kilkenny -	61·4	18·9	14·2	0·0	Wexford -	40·6	4·5	9·0	18·1

In the week ending Saturday, April 25, 1896, the mortality in thirty-three large English towns, including London (in which the rate was 19·3), was equal to an average annual death-rate of 19·5 per 1,000 persons living. The average rate for eight principal towns of Scotland was 19·9 per 1,000. In Glasgow the rate was 20·7. In Edinburgh it was 20·5.

The average annual death-rate represented by the deaths registered during the week in the sixteen principal town districts of Ireland was 25·9 per 1,000 of the population.

The deaths from the principal zymotic diseases in the sixteen

districts were equal to an annual rate of 1·4 per 1,000, the rates varying from 0·0 in thirteen of the districts to 5·1 in Sligo—one of the 2 deaths from all causes registered in that district having been caused by whooping-cough. Among the 165 deaths from all causes registered in Belfast are 8 from measles, 2 from scarlatina, 1 from typhus, 1 from whooping-cough, 1 from diphtheria, 1 from simple continued fever, 3 from enteric fever, and 2 from diarrhœa.

In the Dublin Registration District the registered births amounted to 210—101 boys and 109 girls: and the registered deaths to 156—79 males and 77 females.

The deaths, which are 34 under the average number for the corresponding week of the last ten years, represent an annual rate of mortality of 23·3 in every 1,000 of the population. Omitting the deaths (numbering 4) of persons admitted into public institutions from localities outside the district, the rate was 22·7 per 1,000. During the first seventeen weeks of the current year the death-rate averaged 24·9, and was 6·8 under the mean rate in the corresponding period of the ten years 1886–1895.

The number of deaths from zymotic diseases registered was 11, being 1 over the low number for the preceding week, but 10 under the average for the 17th week of the last ten years. The 11 deaths comprise 1 from scarlet fever (scarlatina), 4 from influenza and its complications, and 3 from whooping-cough.

No cases of small-pox were admitted to hospital. Three small-pox patients were discharged, and 2 remained under treatment on Saturday, being 3 under the number in hospital at the close of the preceding week.

The number of cases of enteric fever admitted to hospital was 5, being 3 under the admissions in the preceding week, and 4 under those in the week ended April 11. Six patients were discharged, and 42 remained under treatment on Saturday, being 1 under the number in hospital at the close of the preceding week.

Forty-one cases of scarlatina were admitted to hospital against 23 admissions in the preceding week, and 25 in that ended April 11. Twenty-two patients were discharged, and 170 remained under treatment on Saturday, being 19 over the number in hospital on that day week.

Deaths from diseases of the respiratory system which had fallen from 35 in the week ended April 11 to 24 in the following week, rose to 33; but this number is 7 below the average for the corresponding week of the last ten years. The 33 deaths consist of 20 from bronchitis and 13 from pneumonia or inflammation of the lungs.

In the week ending Saturday, May 2, the mortality in thirty-three large English towns, including London (in which the rate was 18·5), was equal to an average annual death-rate of 18·4 per 1,000 persons living. The average rate for eight principal towns of Scotland was 19·0 per 1,000. In Glasgow the rate was 19·0, and in Edinburgh it was 17·7.

The average annual death-rate in the sixteen principal town districts of Ireland was 23·0 per 1,000 of the population.

The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 2·1 per 1,000, the rates varying from 0·0 in eight of the districts to 5·1 in Sligo—the 5 deaths from all causes registered in that district comprising 1 from whooping-cough. Among the 136 deaths from all causes registered in Belfast are 3 from measles, 6 from scarlatina, 3 from whooping-cough, 3 from diphtheria, 2 from enteric fever, and 2 from diarrhœa. The 17 deaths in Londonderry comprise 1 from measles, 1 from enteric fever, and 1 from diarrhœa.

In the Dublin Registration District the registered births amounted to 229—125 boys and 104 girls; and the registered deaths to 159—87 males and 72 females.

The deaths, which are 24 under the average number for the corresponding week of the last ten years, represent an annual rate of mortality of 23·7 in every 1,000 of the population. Omitting the deaths (numbering 7) of persons admitted into public institutions from localities outside the district, the rate was 22·7 per 1,000. During the first eighteen weeks of the current year the death-rate averaged 24·9, and was 6·6 under the mean rate in the corresponding period of the ten years 1886–1895.

The number of deaths from zymotic diseases registered was 15, being 4 over the low number for the preceding week, but 7 under the average for the 18th week of the last ten years. The 15 deaths comprise 6 from scarlet fever (scarlatina), 1 from influenza, 2 from whooping-cough, 1 from enteric fever, 2 from diarrhœa and vomiting, and 1 from diarrhœa.

No cases of small-pox have been admitted to hospital since the close of the week ended April 11. One small-pox patient was discharged, and 1 only remained under treatment in hospital on Saturday.

Six cases of enteric fever were admitted to hospital, being 1 over the admissions in the preceding week, but 2 under the number in the week ended April 18. Eight patients were discharged, 1 died, and 39 remained under treatment on Saturday, being 3 under the number in hospital on the previous Saturday.

The number of cases of scarlatina admitted to hospital was 33, being 8 under the admissions in the preceding week, but 10 over the number in the week ended April 18. Twenty-nine patients were discharged, 3 died, and 171 remained under treatment on Saturday, being 1 over the number in hospital at the close of the preceding week.

Only 19 deaths from diseases of the respiratory system were registered, being 18 below the average for the corresponding week of the last ten years, and 14 under the number for the previous week. They comprise 11 from bronchitis and 6 from pneumonia or inflammation of the lungs.

In the week ending Saturday, May 9, the mortality in thirty-three large English towns, including London (in which the rate was 17·9), was equal to an average annual death-rate of 18·5 per 1,000 persons living. The average rate for eight principal towns of Scotland was 18·9 per 1,000. In Glasgow the rate was 19·5, and in Edinburgh it was 17·1.

The average annual death-rate represented by the deaths registered in the sixteen principal town districts of Ireland was 21·7 per 1,000 of the population.

The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 2·6 per 1,000, the rates varying from 0·0 in eleven of the districts to 11·0 in Londonderry—the 16 deaths from all causes registered in that district comprising 5 more from measles, 1 from scarlatina, and 1 from diarrhœa. Among the 140 deaths from all causes registered in Belfast are 7 from measles, 4 from scarlatina, 8 from whooping-cough, 1 from diphtheria, 2 from enteric fever, and 3 from diarrhœa.

In the Dublin Registration District the registered births amounted to 237—128 boys and 109 girls; and the registered deaths to 147—81 males and 66 females.

The deaths, which are 23 under the average number for the corresponding week of the last ten years, represent an annual rate of mortality of 21·9 in every 1,000 of the population. Omitting the deaths (numbering 6) of persons admitted into public institutions frem localities outside the district, the rate was 21·0 per 1,000. During the first nineteen weeks of the current year the death-rate averaged 24·7, and was 6·5 under the mean rate in the corresponding period of the ten years 1886–1895.

Nineteen deaths from zymotic diseases were registered, being 1 over the average for the corresponding week of the last ten years,

and 4 over the number for the previous week. They comprise 3 from scarlet fever (scarlatina), 1 from typhus, 3 from influenza and its complications, 1 from diphtheria, 1 from ill-defined fever, 5 from enteric fever, 2 from diarrhœa, and 1 from erysipelas.

Only 3 cases of enteric fever were admitted to hospital, being 3 under the admissions in the preceding week, and 2 under those in the week ended April 25. One enteric fever patient was discharged, 2 patients died, and 39 remained under treatment on Saturday, being equal to the number in hospital at the close of the preceding week.

Thirty-five cases of scarlatina were admitted to hospital, being 2 over the admissions in the preceding week, but 6 under those in the week ended April 25. Thirty-one patients were discharged, 2 died, and 173 remained under treatment on Saturday, being 2 over the number in hospital on that day week.

The number of deaths from diseases of the respiratory system registered was 24, being 5 over the low number for the preceding week, but 8 under the average for the 19th week of the last ten years. The 24 deaths comprise 9 from bronchitis and 11 from pneumonia or inflammation of the lungs.

In the week ending Saturday, May 16, the mortality in thirty-three large English towns, including London (in which the rate was 17·8, was equal to an average annual death-rate of 18·4 per 1,000 persons living. The average rate for eight principal towns of Scotland was 19·3 per 1,000. In Glasgow the rate was 21·1, and in Edinburgh it was 18·8.

The average annual death-rate in the sixteen principal town districts of Ireland was 22·1 per 1,000 of the population.

The deaths from the principal zymotic diseases registered in the sixteen districts were equal to an annual rate of 2·5 per 1,000, the rates varying from 0·0 in nine of the districts to 11·0 in Londonderry—the 23 deaths from all causes registered in that district comprising 5 more from measles and 2 from diarrhœa. Among the 144 deaths from all causes registered in Belfast are 12 from measles, 5 from scarlatina, 4 from whooping-cough, 1 from diphtheria, 1 from enteric fever, and 4 from diarrhœa.

In the Dublin Registration District the registered births amounted to 227—112 boys and 115 girls; and the registered deaths to 153—72 males and 81 females.

The deaths, which are 23 under the average for the corresponding week of the last ten years, represent an annual rate of mortality

of 22·8 in every 1,000 of the population. Omitting the deaths (numbering 5) of persons admitted into public institutions from localities outside the district, the rate was 22·1 per 1,000. During the first twenty weeks of the current year the death-rate averaged 24·6 and was 6·3 under the mean rate in the corresponding period of the ten years 1886–1895.

Only 10 deaths from zymotic diseases were registered, being 10 below the average for the corresponding week of the last ten years, and 9 under the number for the previous week. They comprise 1 from scarlet fever (scarlatina), 2 from influenza and its complications, 1 from whooping cough, 1 from diphtheria, 1 from diarrhœa, and 1 from dysentery.

The hospital admissions for the week included 1 case of small-pox. This is the only case of the disease admitted since the week ended April 11. Two small-pox patients remained under treatment in hospital on Saturday.

Six cases of enteric fever were admitted to hospital, being 3 over the admissions in the preceding week, and equal to those in the week ended May 2. Thirteen patients were discharged, and 32 remained under treatment on Saturday, being 7 under the number in hospital at the close of the preceding week.

The number of cases of scarlatina admitted to hospital was 24, being 11 under the admissions in the preceding week, and 9 under those in the week ended May 2. Twenty-seven patients were discharged, and 170 remained under treatment on Saturday, being 3 under the number in hospital on that day week.

Twenty-eight deaths from diseases of the respiratory system were registered, being 4 over the number for the preceding week, but 2 under the average for the 20th week of the last ten years. They comprise 15 from bronchitis and 9 from pneumonia or inflammation of the lungs.

Vital Statistics

For four Weeks ending Saturday, June 13, 1896.

The deaths registered in each of the four weeks in the sixteen principal Town Districts of Ireland, alphabetically arranged, corresponded to the following annual rates per 1,000 :—

Towns	Weeks ending				Towns	Weeks ending			
	May 23	May 30	June 6	June 13		May 23	May 30	June 6	June 13
Armagh -	28·0	14·0	14·0	14·0	Limerick -	5·6	15·4	19·6	26·7
Belfast -	24·8	21·2	24·4	24·3	Lisburn -	8·5	29·8	4·3	12·8
Cork -	22·1	17·3	21·5	12·5	Londonderry	26·7	34·6	29·8	20·4
Drogheda -	35·1	4·4	22·0	17·6	Lurgan -	13·7	27·4	18·2	13·7
Dublin -	21·9	23·4	19·1	22·8	Newry -	20·1	24·1	28·2	28·2
Dundalk -	0·0	8·4	46·1	12·6	Sligo -	25·4	25·4	25·4	0·0
Galway - -	49·1	26·4	22·7	18·9	Waterford -	62·5	22·5	22·5	10·0
Kilkenny -	23·6	51·9	42·5	28·3	Wexford -	18·1	22·6	13·5	22·6

In the week ending Saturday, May 23, 1896, the mortality in thirty-three large English towns, including London (in which the rate was 17·8), was equal to an average annual death-rate of 18·1 per 1,000 persons living. The average rate for eight principal towns of Scotland was 19·2 per 1,000. In Glasgow the rate was 20·9. In Edinburgh it was 17·3.

The average annual death-rate represented by the deaths registered during the week in the sixteen principal town districts of Ireland was 23·3 per 1,000 of the population.

The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 2·1 per 1,000, the rates varying from 0·0 in ten of the districts to 12·5 in Waterford—the 25 deaths from all causes registered in that district comprising 5 from whooping-cough. Among the 132 deaths from all causes registered in Belfast are 3 from measles, 5 from scarlatina, 8 from whooping-cough, 1 from diphtheria, 1 from enteric fever, and 2 from diarrhœa.

In the Dublin Registration District the registered births amounted to 173—78 boys and 95 girls; and the registered deaths to 159—87 males and 72 females.

The deaths, which are 5 under the average number for the corresponding week of the last ten years, represent an annual rate of mortality of 23·7 in every 1,000 of the population. Omitting the deaths (numbering 12) of persons admitted into public institutions from localities outside the district, the rate was 21·9 per 1,000. During the first twenty-one weeks of the current year the death-rate averaged 24·6, and was 6·0 under the mean rate in the corresponding period of the ten years, 1886–1895.

The number of deaths from zymotic diseases registered was 12, being 2 over the low number for the preceding week, but 7 below the average for the 21st week of the last ten years. The 12 deaths comprise 1 from small-pox—that of a woman, aged 35 years, who had not been vaccinated—1 from scarlet fever (scarlatina), 1 from typhus, 1 from influenza, 3 from whooping-cough, 2 from enteric fever, and one from diarrhœa.

No cases of small-pox were admitted to hospital. One of the two small-pox patients in hospital at the close of the preceding week died in the course of this week, and 1 remained under treatment on Saturday.

Eleven cases of enteric fever were admitted to hospital, against 6 admissions in the preceding week. Five patients were discharged and 38 remained under treatment on Saturday, being 6 over the number in hospital on the previous Saturday.

The number of cases of scarlatina admitted to hospital was 26, being 2 over the admissions in the preceding week, but 9 under those in the week ended May 9. Twenty-eight patients were discharged, 2 died, and 166 remained under treatment on Saturday, being 4 under the number in hospital at the close of the preceding week.

Diseases of the respiratory system caused 31 deaths, being 5 in excess of the average for the corresponding week of the last ten years, and 3 over the number for the previous week. The 31 deaths comprise 16 from bronchitis and 11 from pneumonia or inflammation of the lungs.

In the week ending Saturday, May 30, the mortality in thirty-three large English towns, including London (in which the rate was 16·9), was equal to an average annual death-rate of 17·6 per 1,000 persons living. The average rate for eight principal towns of Scotland was 19·2 per 1,000. In Glasgow the rate was 20·9, and in Edinburgh it was 15·2.

The average annual death-rate in the sixteen principal town districts of Ireland was 22·3 per 1,000 of the population.

The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 2·4 per 1,000, the rates varying from 0·0 in nine of the districts to 10·0 in Waterford—the 9 deaths from all causes registered in that district comprising 4 more from whooping-cough. Among the 113 deaths from all causes registered in Belfast are 3 from measles, 3 from scarlatina, 3 from whooping-cough, 8 from enteric fever, and 1 from diarrhœa. Of the 25 deaths in Cork 1 was from enteric fever and 1 from diarrhœa. Among the 22 deaths in Londonderry are 4 from measles, 1 from scarlatina, and 1 from diarrhœa. The 11 deaths in Kilkenny comprise 1 from whooping-cough and 1 from diarrhœa.

In the Dublin Registration District the registered births amounted to 164—89 boys and 75 girls; and the registered deaths to 160—82 males and 78 females.

The deaths, which are 2 under the average number for the corresponding week of the last ten years, represent an annual rate of mortality of 23·9 in every 1,000 of the population. Omitting the deaths (numbering 3) of persons admitted into public institutions from localities outside the district, the rate was 23·4 per 1,000. During the first twenty-two weeks of the current year the death-rate averaged 24·5, and was 5·8 under the mean rate in the corresponding period of the ten years 1886–1895.

The number of deaths from zymotic diseases registered was 16, being 4 over the number for the preceding week, but 3 under the average for the 22nd week of the last ten years. The 16 deaths comprise one from varicella (chicken-pox), one from scarlet fever (scarlatina), 5 from influenza and its complications, 5 from enteric fever, 1 from diarrhœa, and 2 from dysentery.

No cases of small-pox were admitted to hospital. The small-pox patient in hospital at the close of the preceding week remained under treatment on Saturday.

The number of cases of enteric fever admitted to hospital was 7, being 4 under the admissions in the preceding week, but one over those in the week ended May 16. Seven patients were discharged, 2 died, and 36 remained under treatment on Saturday, being 2 under the number in hospital at the close of the preceding week.

Thirty-one cases of scarlatina were admitted to hospital, against 26 in the preceding week. Nineteen patients were discharged, 1 died, and 177 remained under treatment on Saturday, being 11 over the number in hospital on that day week.

The number of deaths from diseases of the respiratory system registered was 30, being 3 over the average for the corresponding week of the last ten years, but one under the number for the previous week. The 30 deaths comprise 12 from bronchitis and 13 from pneumonia or inflammation of the lungs.

In the week ending Saturday, June 6, the mortality in thirty-three large English towns, including London (in which the rate was 17·3), was equal to an average annual death-rate of 17·8 per 1,000 persons living. The average rate for eight principal towns of Scotland was 19·2 per 1,000. In Glasgow the rate was 21·5, and in Edinburgh it was 14·9.

The average annual death-rate represented by the deaths registered in the sixteen principal town districts of Ireland was 22·0 per 1,000 of the population.

The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 2·4 per 1,000, the rates varying from 0·0 in nine of the districts to 12·5 in Waterford—the 9 deaths from all causes registered in that district comprising 5 more from whooping-cough. Among the 130 deaths from all causes registered in Belfast are 7 from measles, 5 from scarlatina, 1 from whooping-cough, 1 from simple continued fever, 4 from enteric fever, and 2 from diarrhœa. The 19 deaths in Londonderry comprise 4 more from measles and 1 from diarrhœa.

In the Dublin Registration District the registered births amounted to 235—121 boys and 114 girls; and the registered deaths to 133—69 males and 64 females.

The deaths, which are 25 under the average number for the corresponding week of the last ten years, represent an annual rate of mortality of 19·8 in every 1,000 of the population. Omitting the deaths (numbering 5) of persons admitted into public institutions from localities outside the district, the rate was 19·1 per 1,000. During the first twenty-three weeks of the current year the death-rate averaged 24·3, and was 5·7 under the mean rate in the corresponding period of the ten years 1886–1895.

Only 13 deaths from zymotic diseases were registered, being 6 below the average for the corresponding week of the last ten years, and 3 under the number for the previous week. They comprise 2 from scarlet fever (scarlatina), 1 from typhus, 1 from influenza, 1 from whooping-cough, 2 from ill-defined fever, and 2 from diarrhœa.

One case of small-pox was admitted to hospital—the only case received during the last three weeks. One small-pox patient was

discharged, and one remained under treatment in hospital on Saturday.

Fifteen cases of enteric fever were admitted to hospital, being 8 in excess of the admissions for the preceding week, and 4 over the number in the week ended May 23. Three patients were discharged, and 48 remained under treatment on Saturday, being 12 over the number in hospital at the close of the preceding week.

The weekly number of cases of scarlatina admitted to hospital, which had risen from 26 in the week ended May 23, to 31 in the following week, further rose to 40. Thirty-three patients were discharged, and 184 remained under treatment on Saturday, being 7 over the number in hospital on that day week.

Deaths from diseases of the respiratory system, which were 31 in the week ended May 23, and 30 in the following week, fell to 23, or 4 under the average for the corresponding week of the last ten years. The 23 deaths comprise 11 from bronchitis, and 10 from pneumonia or inflammation of the lungs.

In the week ending Saturday June 13, the mortality in thirty-three large English towns, including London (in which the rate was 16·5), was equal to an average annual death-rate of 16·7 per 1,000 persons living. The average rate for eight principal towns of Scotland was 18·5 per 1,000. In Glasgow the rate was 21·2, and in Edinburgh it was 14·7.

The average annual death-rate in the sixteen principal town districts of Ireland was 21·5 per 1,000 of the population.

The deaths from the principal zymotic diseases registered in the sixteen districts were equal to an annual rate of 2·3 per 1,000, the rates varying from 0·0 in eleven of the districts to 7·9 in Londonderry—the 13 deaths from all causes registered in that district comprising 4 more from measles and 1 from diarrhœa. Among the 129 deaths from all causes registered in Belfast are 10 from measles, 4 from scarlatina, 1 from typhus, 2 from whooping-cough, 1 from simple continued fever, 4 from enteric fever, and 1 from diarrhœa.

In the Dublin Registration District the registered births amounted to 183—80 boys and 103 girls; and the registered deaths to 159—78 males and 81 females.

The deaths, which are 12 under the average number for the corresponding week of the last ten years, represent an annual rate of mortality of 23·7 in every 1,000 of the population. Omitting the deaths (numbering 6) of persons admitted into public institu-

tions from localities outside the district, the rate was 22·8 per 1,000. During the first twenty-four weeks of the current year the death-rate averaged 24·3, and was 5·5 under the mean rate in the corresponding period of the ten years, 1886–1895.

As in the week preceding, only 13 deaths from zymotic diseases were registered. This number is 8 below the average for the 24th week of the last ten years. The 13 deaths comprise 3 from scarlet fever (scarlatina), 1 from influenza, 4 from whooping-cough, 2 from enteric fever, 1 from diarrhœa, and 1 from erysipelas.

The only small-pox patient in hospital was discharged in the course of the week. No new cases were admitted, so that for the first time since the week ended May 26, 1894, the hospitals are free from cases of small-pox.

The number of cases of enteric fever admitted to hospital was 7, being 8 under the admissions in the preceding week, and equal to the number admitted in the week ended May 30. Six patients were discharged, 2 died, and 47 remained under treatment on Saturday, being 1 under the number in hospital at the close of the preceding week.

The cases of scarlatina admitted to hospital also show a decline as compared with the high number for the preceding week, the admissions being 33, or a falling off of 7. Twenty-four patients were discharged, 3 died, and 190 remained under treatment on Saturday, being 6 over the number in hospital an the previous Saturday.

Diseases of the respiratory system caused 30 deaths, being 5 in excess of the average for the corresponding week of the last ten years, and 7 over the number for the previous week. The 30 deaths comprise 11 from bronchitis, 13 from pneumonia or inflammation of the lungs, and 2 from croup.

METEOROLOGY.

Abstract of Observations made in the City of Dublin, Lat. 53° 20′ N., Long. 6° 15′ W., for the Month of May, 1896.

Mean Height of Barometer, - - -	30·308 inches.
Maximal Height of Barometer (on 25th, 9 a.m.),	30·558 „
Minimal Height of Barometer (on 22nd, 9 a.m.),	29·991 „
Mean Dry-bulb Temperature, - -	54·9°.
Mean Wet-bulb Temperature, - -	50·7°.
Mean Dew-point Temperature, - -	46·7°.
Mean Elastic Force (Tension) of Aqueous Vapour,	·321 inch.
Mean Humidity, - - - -	74·6 per cent.
Highest Temperature in Shade (on 29th), -	71·8°.
Lowest Temperature in Shade (on 1st), -	36·2°.
Lowest Temperature on Grass (Radiation) (on 3rd), - - - - -	32·2°.
Mean Amount of Cloud, - - -	42·9 per cent.
Rainfall (on 7 days), - - -	0·190 inch.
Greatest Daily Rainfall (on 18th), - -	0·080 „
General Directions of Wind, -	E., N.W.

Remarks.

A beautiful month, very similar to May, 1895—bright and dry, without any severe nipping night frosts. Prevalent easterly sea breezes by day along the east coast of Ireland tempered the heat of an often unclouded sun. The amount of cloud was very low—only 42·9 per cent. At 9 a.m. it rose to 48·1 per cent., but at 9 p.m. it fell to 37·7 per cent. Rain fell in Dublin on only 7 days, and the total measurement was less than one-fifth of an inch, or about one-eleventh of the average rainfall for May.

In Dublin the arithmetical mean temperature (55·2°) was decidedly above the average (52·0°); the mean dry bulb readings at 9 a.m. and 9 p.m. were 54·9°. In the thirty-one years ending with 1895, May was coldest in 1869 (M. T. = 48·2°), and warmest in 1893 (M. T. = 56·7°). In 1894 the M. T. was 49·2°; in 1895 it was 54·3°.

The mean height of the barometer was 30·308 inches, or 0·319 inch above the corrected average value for May—namely, 29·989 inches. The mercury rose to 30·558 inches at 9 a.m. of the 25th, and fell to 29·991 inches at 9 a.m. of the 22nd. The observed range of atmospheric pressure was, therefore, only 0·567 inch.

The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 54·9°, or 5·2° above

the value for April, 1896 (49·7°). Using the formula, *Mean Temp.* = *Min.* + (*max.*—*min.* × ·47), the value was 54·7°, or 3·1° above the average mean temperature for May, calculated in the same way, in the twenty-five years, 1865–89, inclusive (51·6°). The arithmetical mean of the maximal and minimal readings was 55·2°, compared with a twenty-five years' average of 52·0°. On the 29th the thermometer in the screen rose to 71·8°—wind, N.; on the 1st the temperature fell to 36·2°—wind, N.N.W. The minimum on the grass was 32·2° on the 3rd.

The rainfall amounted to only ·190 inch, distributed over 7 days. The average rainfall for May in the twenty-five years, 1865–89, inclusive, was 2·030 inches, and the average number of rainy days was 15·4. The rainfall and the rainy days, therefore, were much below the average. In 1886 the rainfall in May was very large—5·472 inches on 21 days; in 1869, also, 5·414 inches fell on 19 days. On the other hand, in 1895, only ·177 inch was measured on but 3 days. In 1892 the large amount of 4·177 inches fell on 19 days. In 1893 the fall was 1·666 inches on 10 days; and in 1894, 3·558 inches on 17 days.

Solar halos were seen on the 13th, 21st, and 24th, lunar halos on the 19th, and an aurora on the 2nd. High winds were noted on but 3 days, attaining the force of a gale (from N.N.W.) on the 20th only. The atmosphere was slightly foggy on the 4th and 6th.

During the month the thermometer did not fall below 32° in the screen, but it indicated slight frost on the grass on the night of the 3rd. The mean minimal temperature on the grass was 43·1°, compared with 41·8° in 1895, 37·6° in 1894, 45·6° in 1893, 41·3° in 1892, 37·7° in 1891, 42·2° in 1890, 42·4° in 1889, 37·5° in 1888, and 37·9° in 1887.

On Friday, the 1st, an anticyclone was formed over Ireland, and this high pressure system continued to develop until the close of the week, quiet, cool, dry, fine weather being the result. The screened thermometers sank to 36·2° on Friday. An aurora borealis was seen on Saturday night.

Favourable weather held throughout the week ended Saturday, the 9th. The type was chiefly anticyclonic, with easterly winds, dry and fine. At the beginning an immense area of high pressure stretched across the British Islands, the North Sea and Scandinavia. The air was calm and the sky clear, so that the diurnal range of temperature was large, cold nights being followed at inland stations by warm days. On Monday the thermometer rose to 62° in London, while it fell to 36° during the ensuing night. Signs of a

shallow depression at this time showed themselves off the N.W. of Ireland, so that the sky became cloudy over this country and rain fell, rather heavily in the N.W. At 8 a.m. of Tuesday ·36 inch of rain was registered at Malin Head and ·57 inch at Belmullet. Even in Dublin some slight showers occurred on Tuesday, both morning and evening; the measurement, however, was only ·015 inch. The anticyclone then began to develop again, and a spell of easterly winds set in. Sea fog accompanied the easterly current on Wednesday morning, but much bright sunshine was enjoyed daily until the end of the week, Friday being an especially genial day. On that day the thermometer rose to 70° in the shade at Parsonstown and Donaghadee and to 71° at Belmullet. In Dublin the mean atmospheric pressure was 30·369 inches, the barometer ranging from 30·489 inches, at 9 p.m. of Sunday (wind, S.E.), to 30·297 inches, at 9 p.m. of Saturday (wind, E.). The corrected mean temperature was 52·4°. The mean dry bulb value at 9 a.m. and 9 p.m. was 52·5°. On Sunday the thermometers in the screen fell to 37·6°, on Friday they rose to 64·5°. Easterly winds prevailed. The rainfall was ·015 inch on two days, ·008 inch being measured on Monday.

Throughout the week ended Saturday, the 16th, Ireland lay well within the central area of an anticyclone, so that the barometer readings were high and uniform, and the weather was fine and quiet. Winds from polar quarters predominated, but owing to the prevalence of bright sunshine, temperature rose even by night, and was very high on several occasions during the daytime. From Dublin not a cloud was to be seen in the sky until Tuesday afternoon. On Wednesday, however, a good deal of cirrus came up from N.W., producing a solar halo. There was also on this day some turreted cumulus, which is a very electrical cloud-formation. The last three days were rather cloudy, especially in the mornings, and a slight shower fell on Friday at an early hour. On Saturday, also, a few drops of rain fell at 9 15 a.m. While the weather was thus exceptionally fine in Ireland, less fair conditions prevailed in Scotland and also for a time in England. This was brought about by the passage of several depressions across Scandinavia in a south-easterly direction. On Tuesday the shade thermometers rose to 80° at York and Loughborough, to 77° in London and at Parsonstown and Oxford, and to 76° at Cambridge. Thunder and lightning followed very generally in the N.E. and E. of England, but scarcely any rain fell. In Dublin the mean height of the barometer was 30·305 inches, pressure ranging from 30·444 inches at 9 a.m. of Tuesday (wind, E.), to 30·160 inches at 9 p.m. of Thursday (wind,

N.W.). The corrected mean temperature was 57·8°. The mean dry bulb temperature at 9 a.m. and 9 p.m. was 57·9°. On Monday the screened thermometers fell to 45·8°, on Wednesday they rose to 71·2°. The rainfall was a mere trace—·002 inch on Thursday. The prevalent winds were E. and N.W.

Although not unfavourable, the weather for the week ended Saturday, the 23rd, was much less settled than that of past weeks, and grateful rain fell in frequent showers, abundantly in some parts of the kingdom, more sparingly in others. Speaking generally, the barometer stood high off the S.W. of Ireland, where an anticyclone held its position almost throughout, while a number of depressions formed over the Norwegian Sea, the southern half of Scandinavia and the North Sea, with a general tendency to drift south-eastwards to Central Europe. Hence N.W. winds prevailed in the British Isles, increasing in force to a moderate and, at exposed stations, a strong gale on Wednesday. Temperature also gave way considerably after Monday, when the thermometer in the shade rose to 77° in London, 76° at Loughborough, 75° at Cambridge, and 69° in Dublin. On Wednesday night it fell to 34° at York, 35° at Parsonstown, 36° at Wick, Loughborough, Oxford, and Cambridge, 38° in London, and 40° in Dublin—the grass minimum at Loughborough was 28°. This chill had been preceded by thunder, lightning, and hail showers on Wednesday in several parts of England. Rain began to fall freely on Thursday, and the air, which had been dry and searching, became moist, soft, and warm. Fresh westerly to northerly winds continued to the close of the week. In Dublin the mean height of the barometer was 30·162 inches, pressure ranging between 30·335 inches at 9 p.m. of Saturday (wind, N.W.) and 29·991 inches at 9 a.m. of Friday (wind, N.W.). The corrected mean temperature was 55·4°, the mean dry bulb reading at 9 a.m. and 9 p.m. being also 55·4°. On Monday the screened thermometers rose to 69·2°, on Thursday they fell to 40·3°. The rainfall was ·173 inch on five days, ·080 inch being registered on Monday, on the afternoon of which day slight thunder and lightning occurred over the south-eastern suburbs of Dublin. The prevalent wind was N.W.

Anticyclonic conditions ruled in Ireland throughout the week ended Saturday, the 30th, and the weather was very dry and fine, with continuous polar winds. At first the nights were cold, but as the week advanced a freshening breeze checked the nocturnal fall of temperature. By day the sun had great power, and on Friday, notwithstanding a fresh northerly wind, a shade maximum of 71·8° was recorded. The barometer stood at 30·5 inches or

upwards over a great part of Ireland until Tuesday afternoon, when a somewhat decided fall in pressure spread northwards from France, threatening to break up the fine weather. A recovery, however, soon followed. This in turn was succeeded by a brisk fall of the barometer in Scandinavia, so that by Friday morning the centre of a well-marked depression had advanced from the N.W. to the neighbourhood of Stockholm. This disturbance brought steady rain to Norway, Sweden, and Denmark, showers to Scotland and to exposed places in the N.E. and E. of England, clouds and squally northerly winds to all parts of the British Islands. In Ireland (except in the extreme North) the weather remained rainless to the close of the week. Saturday broke overcast and cool, but the clouds soon dispersed and the afternoon was brilliant. Thunderstorms occurred on the Continent on and after Tuesday, and a terrific tornado devastated the city of St. Louis, Missouri, on Wednesday afternoon. In Dublin the mean height of the barometer was 30·398 inches—highest, 30·558 inches at 9 a.m. of Monday (wind, E.N.E.); lowest, 30·181 inches at 1 p.m. of Friday (wind, N.). The corrected mean temperature was 56·0°, the mean dry bulb reading at 9 a.m. and 9 p.m. was 55·7°. The screened thermometers fell to 43·2° on Sunday, and rose to 71·8° on Friday. The prevalent wind was N.E. No rain fell.

Sunday, the 31st, was brilliantly fine.

The rainfall in Dublin during the five months ending May 31st amounted to only 5·971 inches on 70 days, compared with 10·410 inches on 68 days in 1895, 12·709 inches on 90 days in 1894, 7·908 inches on 66 days in 1893, 10·099 inches on 80 days in 1892, only 5·995 inches on 63 days in 1891, 11·483 inches on 76 days in 1890, 10·476 inches on 91 days in 1889, 9·068 inches on 69 days in 1888, 6·489 inches on 62 days in 1887, and a twenty-five years' average of 10·496 inches on 81·6 days. The deficit so far in 1896 slightly exceeds 43 per cent.

At Knockdolian, Greystones, Co. Wicklow, the rainfall was 0·030 inch, distributed over only 2 days—·015 inch falling on the 18th and the same quantity on the 19th. The total fall since January 1st, 1896, equals 5·716 inches on 52 days, compared with 12·845 inches on 58 days in 1895, 15·696 inches on 85 days in 1894, and 9·565 inches on 65 days in 1893.

The rainfall at Cloneevin, Killiney, Co. Dublin, was 0·060 inch on 2 days—0·03 inch falling on both the 18th and 19th. At this station the average rainfall in May in the ten years, 1885–1894, was 2·456 inches on 15·2 days. May, 1895, was a very dry month, only 0·12 inch falling on 3 days, but the past month "beats

the record." Since January 1, 1896, 5·33 inches of rain have fallen on 57 days at Cloneevin.

A more plentiful rainfall was recorded west and north of the city. The measurement at the Ordnance Survey Office, Phœnix Park, was ·400 inch on 9 days; that at the Royal Botanic Gardens, Glasnevin, was ·330 inch on 6 days.

ETHER *v.* CHLOROFORM.

Il Policlinico concludes an article "On the Action of Ether on the Kidneys," with a declaration of its decided preference for ether as an anæsthetic. Although renal disturbances are more frequent after its use than after chloroform, it does not induce the serious degenerative lesions which are apt to follow the latter. Ether leaves the operator's mind more free than chloroform from anxiety as to the condition of the kidneys after an operation.

PLAGUE.

THE *Gazette Médicale de Paris* summarises a paper on the plague, read by M. Mahé before the *Académie de Médecine*. The author estimates the mortality from plague, in the last forty years, at 300,000. The death-rate is not diminished in successive epidemics. The average mortality is 50 per cent., but the rate has been known to reach 96. "The plague bacillus is known, through M. Nersin's descriptions. It inhabits the soil, developing with difficulty in water. This fact explains why the floating populations in China, living in boats, generally escape plague."

APPENDICITIS.

THERE are signs of reaction against the surgical treatment of real or imagined appendicitis. The appendix vermiformis is, it may be confessed, neither useful nor ornamental; but there is something uncanny in the thought that, as things were going, every second man, woman, and child one should meet in the street had had his (or her) appendix removed, like a lamb's tail. In the *Medical Record* Dr. W. N. M'Artney publishes a paper on "Appendicitis from the Medical Standpoint." He had treated twenty-four consecutive cases successfully with opium. "In recurrent appendicitis," he says, "I have usually advised operation, but I have noticed that the recurrent cases have usually been mild. Where there has been a severe and prolonged attack it has never in my experience been followed by a second attack."

PERISCOPE.

INTERNATIONAL LANGUAGE.

In a letter written shortly before his death to Dr. Jankau, Professor Billroth expressed himself as follows upon the choice of an international language: "I would recommend the most simple of the Romance languages, that is Spanish, as a common speech for the learned; after that would come Italian and French, and among the Germanic tongues, English only. The latter would be by far the most suitable of all, for it is also one of the simplest. But as the Latin races are so absolutely without the talent for learning foreign languages it is necessary, because of their other great attainments in the line of culture and science, to make a concession to them in this regard, and select a Romance tongue as the international language."—*Medical Record.*

DELUSIONS AND SANITY.

An important decision was recently given in the Supreme Court of Tennessee, in a case of murder, in which a plea of insanity was set up. The court held "that in criminal cases the correct issue is not that of sanity, but of responsibility. The delusions of a sane man do not make him irresponsible. The question is in such cases, is the delusion set up as a defence the delusion of an insane person? Many men of strong minds, continues the court, have delusions. Remarkable instances are given in the works on medical jurisprudence of delusions in men of prominence in all the walks of life. Lord Kenyon had an unreasoning fear of poverty, and so had Lord Stowell, although he was a man of immense fortune, his home being absolutely destitute of the necessities and comforts of life. Lord Erskine would never sit at a table or remain in a company as one of thirteen persons. Lord Eldon, after he had made up his mind and expressed his opinion lucidly and conclusively, was at all times a prey to grave doubts of his correctness. Lord Brougham, upon more than one occasion, was placed in seclusion, his mind being clearly off balance. Judge Breckenridge, of Pennsylvania, is reported to have on a hot day, while holding court at Sunbury, gradually taken off his clothes, until he sat naked on the bench. Judge Baldwin, of the United States Supreme Court, was a hypochondriac. A distinguished New England judge imagined

that a dropsical affection under which he laboured was a sort of pregnancy. And yet none of these men were insane, because they had reason and sanity enough to conquer and overcome these delusions. A familiar illustration is that of the Mormon elders, who claimed that they had a direct revelation from heaven permitting them to practice and teach polygamy. The world generally regards this as a rank heresy, and the claim to be the evidence of an unreasonable delusion. It has, however, been held that they can not defend on the ground of such delusion, inasmuch as otherwise they are sane, shrewd, active, successful, and unusually practical men in their business and social relations, and they have been held responsible for such delusions. Nor can it be said that the jealous suspicions which so many men entertain without any foundation can be magnified into insane delusions, which will exempt them from punishment for crimes originating in such jealousy. In a sense, all unfounded suspicions are delusions, but they do not for that reason excuse crime"—*Journal American Medical Association.*

ABUSE OF HOSPITALS.

We have received a little tract by Dr. W. Knowsley Sibley on this subject of great and growing importance. He entitles it "State-Aided *v.* Voluntary Hospitals." He shows that the "State system exists, with the exception of our own country, practically throughout the civilised world;" and he demonstrates with great force the disadvantages and gross abuses of the English system. With these we have long been familiar. It is enough to state that *one quarter* of the population of the great towns in England receives, annually, *in formâ pauperis*, gratuitous medical relief.

CHLOROFORMISATION.

From a number of experiments on dogs, Dr. Evenchoff (*Wratsch*) strongly recommends hypodermic injections of strychnin when the blood pressure falls during chloroformisation. He opened the trachea of sixteen dogs, and having chloroformed them watched until the blood pressure fell to zero, then he gave a hypodermic injection of strychnin, removed the chloroform vapour, and found that the blood pressure quickly reached the normal. He recommenced the administration of the chloroform vapour and found that after the injection of the strychnin the dog required a much larger amount of chloroform to lower the blood pressure.—*La Presse Médicale.*

NEW PREPARATIONS AND SCIENTIFIC INVENTIONS.

Tabloids prepared from Animal Substances.

Messrs. Burroughs, Wellcome & Co., Snow Hill Buildings, London, E.C., have submitted to us a number of "tabloids" prepared from medicinal animal substances. Animal remedies have been used from the earliest historical periods. They bulk largely in Egyptian, Grecian and Roman systems of medicine, and, descending to modern times, we find that digestive ferments were employed for indigestion and other abdominal troubles long before the days of Corvisart and Dr. George Harley. Later still, animal substances have come to be employed for the same purposes as those for which the ancients used them, for their power of modifying tissue change and reproducing defective function, or of supplying vicariously definite principles, the absence of which in corresponding organs of the living body is the cause of certain forms of disease.

Although the ultimate chemistry of animal enzymes is still in a most incomplete state, it has already been definitely ascertained that liquid extracts must and do, from many causes chemical and bacteriological, vary considerably in their activity, and Professor Schäfer attributes to the inconsistency of *extracts* the failure of many important investigations. Animal substance "tabloids," on the contrary, contain the whole of the substance, and all the active principles of the carefully selected organs from which they are prepared, and may thus be presumed to ensure still further activity, uniformity of effect, and perfect preservability. By their means the physician is enabled to regulate the dose with the utmost convenience and certainty.

The recent additions to the long list of tabloids which have been prepared by Messrs. Burroughs, Wellcome and Company, have been suggested in every case by leading clinical investigators.

Salivary Gland "Tabloids."—Although published experimental records are wanting regarding the action of the various salivary glands as internal secretors, their structure undoubtedly affords evidence of other functions than that of producing the amylolytic ferment, and of preparing the food for gastric digestion. They are being tried by clinical investigators in amylaceous dyspepsia, and for their vicarious action when the salivary glands have been removed by operation. They are supplied in bottles containing 100 5-grain "tabloids."

Pineal Gland "Tabloids."—The function of the pineal gland has been, and still is, the subject of controversy. Its removal in animals

has caused profound alterations in the central nervous system. "Tabloids" of the substances of the gland act as a stimulant to the great cerebral centres, and have a specific therapeutic effect on the grey matter of the cerebellum and cerebrum. They are prescribed in cases of organic and functional disease of the brain with failure of nutrition. Among these may be mentioned mania, dementia, and cerebral softening. They are supplied in bottles containing 100 1-grain "tabloids."

Nuclein "*Tabloids.*"—According to Huber, the subcutaneous injection of this phosphorised proteid body increases the number of white corpuscles in both healthy and tuberculous subjects. The investigations of Kossel and Tichimoroff prove conclusively that nuclein has an antagonistic effect upon toxins and toxalbumins, both classes of bodies being precipitated from solutions by active nuclein. Nuclein "Tabloids" have already been tried with favourable results in chronic rheumatism, neurasthenia, nervous prostration, chronic catarrhal bronchitis, and suppurative tonsillitis. They are supplied in bottles containing 100 1-grain "tabloids."

Kidney Substance "*Tabloids.*"—No doubt exists of the internal *secreting* function of the kidney, and many investigators have considered that this part of its function is of equal importance with its work of excretion. It performs a very important rôle in metabolic processes, and the failure of the supply of its internal secretion speedily leads to disorganisation of the nitrogenous metabolism, and is followed by wasting and death. Kidney Substance "Tabloids" contain the active principle which is poured into the blood, and are indicated in those diseases which arise from failure of this function of the renal gland. They are supplied in bottles containing 100 5-grain "tabloids."

Cervical Lymphatic Gland "*Tabloids.*"—These tabloids are administered in glandular troubles, which have their origin not in a diathesis, but in local disease. Its action is probably due to the presence in the "tabloid" of the active enzyme secreted by the living gland. They are employed by physicians in cases of lymphadenoma or Hodgkins' disease, and exophthalmic goitre or Graves's disease, and in glandular swellings of various kinds. They are supplied in bottles containing 100 $2\frac{1}{2}$-grain "tabloids."

Fallopian Tube "*Tabloids.*"—The substance of the Fallopian tubes is said to contain certain enzymes of importance in organo-therapeutics, and seems to be especially effective in hysteria and allied neurotic disorders. They are supplied in bottles containing 100 5-grain "tabloids."

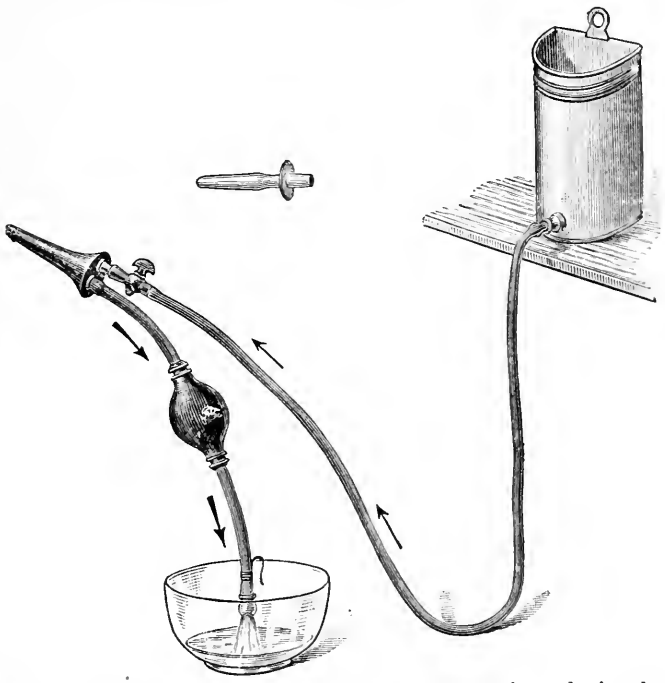
Liver "*Tabloids.*"—The substance of this organ is being used therapeutically for the sake of those products which it returns to

the blood. After being manipulated by a special process and compressed into tabloids" it is employed as an anti-dysenteric, antilithic, and even as a febrifuge, and also in diabetes, uræmia, and other derangements of the hepatic functions. These "tabloids" are supplied in bottles containing 100 5-grain "tabloids."

Spinal Cord "Tabloids."—These "tabloids" contain myelin and other nerve phosphates, the active therapeutic principles of the spinal cord. They are at present under trial in hospitals and lunatic asylums in diseases of the cortical portion of the brain and spinal marrow, and promise to be of some considerable therapeutic importance. They are supplied in bottles containing 100 $2\frac{1}{2}$-grain "tabloids."

The "Onah" Douche.

We have received from the patentees, Messrs. J. G. Ingram and Son, of London, one of their ingenious vaginal douches, medium size, to which they have given the fancy name "Onah." The principle of the instrument is shown in the annexed illustration.



The apparatus consists of a can of bronzed metal, made in three sizes—large, holding 2 quarts; medium, 3 pints; small, 1 pint. White enamelled metal or glass may be substituted for bronzed

metal, if so ordered. The can, filled with the disinfecting or other fluid, is placed at a moderate elevation above the patient's body. The fluid is carried through a long affluent supply tube of best black enamelled rubber, partly by the force of gravity, partly by suction, as afterwards explained, to the nozzle, the base of which plugs the mouth of the vagina, while shielding and insulating the sensitive parts from a hot injection. The vaginal nozzle, valves, unions, and stopcocks are all made of durable polished vulcanite. When the parts have been flushed, the used fluid returns through a separate outflow or discharge tube, furnished with a bulb and valves. When the bulb is first compressed, and then allowed to expand, it exerts a suction action, which not only withdraws the used fluid from the vagina, but also induces a current of clean fluid from the can, as above mentioned. This apparatus can be used when the patient is lying in bed, without wetting the bedclothes. To use the apparatus, hook the outflow or discharge tube on to a chamber or other waste vessel, insert the nozzle in the vagina, turn on the stopcock, and "operate" the bulb. If the vulcanite unions at the bulb are taken apart, be sure to replace the valves. The vaginal nozzle can be readily detached from its socket, into which a bone rectal pipe fits for administering enemata. The "Onah" douches are supplied complete, in strong and handsome boxes, and may be obtained through any chemist or surgical instrument maker, or from the London India Rubber Works, Hackney Wick, London, E.

Soluble Tabloids of Chloralamid and Bromide of Potassium.

Messrs. Burroughs, Wellcome & Co. have submitted to us a specimen bottle of 100 "tabloids" of chloralamid and bromide of potassium, each "tabloid" containing five grains of each drug. This combination contains members of two different hypnotic groups, the one reducing temperature and conducing to hypnosis when the disturbing influence is due to pyrexia, and the other tending to diminution of cerebral hyperæmia. The combination has been recommended as a powerful hypnotic in the treatment of many forms of insanity, especially acute mania, and has met with considerable success in diminishing the violence, and shortening the attacks, of sea sickness. Directions for use in sea-sickness are placed on the bottle. At this time of the year, when a great number of tourists and travellers are crossing to the Continent and America, this "tabloid" should prove of special value in the hands of competent physicians.

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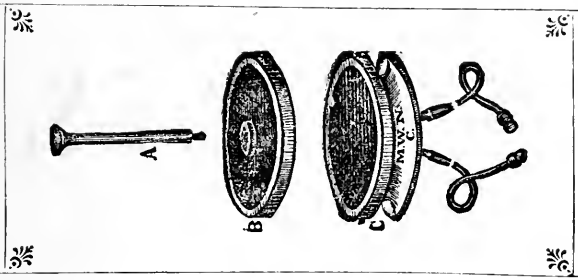

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THIS Instrument is a combination of the principle of the Phonograph and the Binaural Stethoscope, and by its use in auscultation the various sounds in the human body are intensified and rendered more distinct. The normal and abnormal sounds of the heart and lungs can be easily detected through the clothes of a person in ordinary dress. It is expected by the inventors that this instrument will be of the greatest value to the physician and surgeon in helping to elucidate obscure points of diagnosis.

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May be prescribed with most substances compatible with Acids.
In 4-oz., 8-oz., and 16-oz. Bottles, and in Bulk.

The published experiments of G. F. Dowdeswell, Esq., M.A., Cantab., F.C.S., F.L.S., &c., Dr. Pavy, Professor Tuson, the late Professor Garrod, Dr. Arnold Lees, and others, conclusively demonstrate the excellence, high digestive power, and medicinal value of the above preparations.

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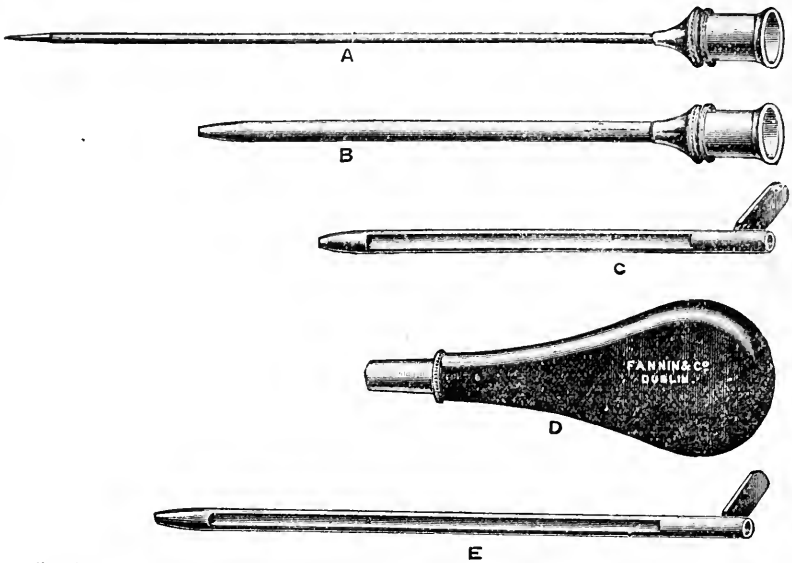

FIG. A represents an ordinary Aspirator Trocar. FIG. B, the Aspirator Cannula belonging to it
FIG. C. Cannula, with Director Groove made to fit accurately over A and B together.
FIG. D. The Handle. FIG. E. Director Cannula, fitting the Trocar A only.

DR. FITZGIBBON writes:—"The difficulty which occasionally arises in deciding with certainty whether a pleuritic effusion has resolved itself into an empyema or not often places the surgeon in the position of having to withdraw an Aspirator Cannula in order to open the pleural cavity freely for drainage and irrigation. Once the Cannula is withdrawn it is not always easy to get a director to follow the same track into the pleural cavity, as the relative positions of the skin, fascia, and pleura are apt to be altered by the escape of the fluid and by a change in the position of the patient."

In order to obviate this difficulty, Dr. H. FitzGibbon has designed the instrument represented in the accompanying woodcuts, and he has found it to facilitate the introduction of the drainage tubes into the thorax very much, and to enable the operation to be performed much more rapidly than is possible without its aid.

The Trocar A being put into the Cannula B, the Director Cannula C is passed over both, and the handle put in situ.

A slight skin incision may be made at the point that it is proposed to tap the thorax, and the Trocar plunged through in the usual manner, and then withdrawn, leaving the Director Cannula in. If the fluid which escapes proves to be serum, it can be allowed to flow off, or be aspirated, as the operator thinks fit, but if it proves to be purulent, and it is necessary to make a free opening for the drainage and irrigation of empyema, the Cannula is withdrawn, leaving the grooved Director Cannula in the cavity, which can be rapidly opened, as freely as is thought necessary, by running a bistoury or a scalpel along director to the stop at the end, and cutting into the direction of the intercostal space as the knife is withdrawn.

Figure E is a Director Cannula which Dr. H. FitzGibbon uses in cases where there is no doubt of the existence of an empyema, and in which a free opening is to be made without exploration.

Dr. H. FitzGibbon says that Messrs. Fannin & Co. have made several of these instruments very neatly for him, and it is essential that the Director Cannula be made to fit accurately, and gently tapered at the point to prevent it from pushing the costal pleura before it. When skilfully made he has found the instrument a most valuable assistance in opening the thorax for drainage and irrigation.—Extract from the *British Medical Journal*, June 6th, 1896.

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—*British Medical Journal*, August 17th, 1895.

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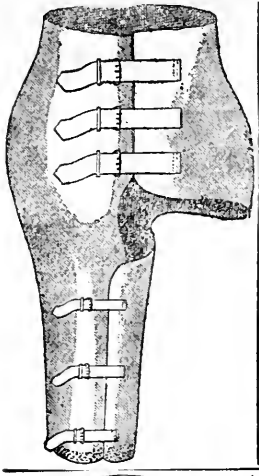

Instructions for Measurement, &c.

HIP SPLINT.

Circumference at waist.
" hips.
" thigh, top of
" above knee.
Length from waist to groin.

State if for right or left side.

LEG SPLINT.

Circumference at top of thigh.
" above knee.
" at knee.
" below knee.
" calf.
" ankle.
Length from groin to centre of knee.
" centre of knee to ankle.

State if for right or left leg.

When the foot-part is required, also circumference of heel and instep, and length from centre of knee to ground.

If the limb is contracted the contour should be given.

Splints are also made in Poroplastic for fracture of Inferior Maxilla, Humerus Elbow-Joint, Forearm, Thigh, Knee-Joint, Leg, Shoulder-Joint, Hand, &c.

These Splints can be fitted perfectly to the Patient if softened either by hot water or in a Heater made for the purpose. When mounted with webbing, hot water will do; if with leather, a Heater should be used. The material becomes quite hard again in two or three minutes.

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The composition of LYSOL is no secret; it has been published. It is a pure Cresol preparation, and is guaranteed to contain the highest percentage of cresylic acid (in free state and neutral solution) of any preparation in the market.

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